

Motivational Beliefs in Language Learning of Secondary School Students in  
Hong Kong: The Relationships among Socio-cultural Influences, Self-efficacy,  
Self-concept, Fear of Failure and Academic Achievement

by

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A Thesis Submitted to  
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## **ABSTRACT**

Motivational Beliefs in Language Learning of Secondary School Students in  
Hong Kong: The Relationships among Socio-cultural Influences, Self-efficacy,  
Self-concept, Fear of Failure and Academic Achievement

by Chao Chih Nuo, Grace

The Hong Kong Institute of Education

### **Abstract**

Enhancing students' academic achievement is essential in recent years due to the increasing demand for academic excellence. Thus, there is a need to conduct evidence-based research to examine the factors that may be associated with and predict academic achievement. Based on the Social Cognitive Theory of human functioning, the present study investigated whether and how socio-cultural influences (i.e., peer support, parental support, and teacher support) and students' personal self-beliefs (i.e., self-efficacy, self-concept and fear of failure)



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predicted students' behavioral outcomes (i.e., academic achievement in English language and Chinese language). The research adopted a quantitative approach in which 1,092 students (S2 to S5) from four Hong Kong secondary schools were asked to complete a questionnaire to report their perceived socio-cultural influences, their personal self-beliefs and academic achievement. Confirmatory Factor Analysis was used to establish the construct validity of the survey instruments used. Regression analyses were used to examine the relationships between the predictor and outcome variables. Results indicated that the five significant predictors for Chinese language achievement were self-efficacy in Chinese and English, self-concept in Chinese and English, and positive parental influences. English self-efficacy was a negative predictor in the analyses. In contrast, only two predictors were significant in predicting English language achievement, namely, English self-efficacy and English self-concept. The findings suggest that language self-concept is the most significant predictor in students' language learning in both Chinese and English and English self-concept is an important predictor of achievement in both languages. Gender difference was found in the present study. The implications of this study are both practical and theoretical. From the practical point of view, this study



provides educators with information on how a positive environment (i.e., peer support, parental support, and teacher support) and personal self-beliefs (i.e., self-efficacy, self-concept and fear of failure) predict academic achievement. From the theoretical point of view, this study also expands Bandura's (1986) Social Cognitive Theory to establish its cross-cultural generalizability in Hong Kong schools.



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## List of Abbreviations

Abbreviation/Symbol	Definition
<i>Alpha</i> ( $\alpha$ )	Cronbach's index of internal consistency
<i>Beta</i> ( $\beta$ )	Standardized regression coefficient
B	Unstandardized regression coefficient
CFA	Confirmatory Factor Analysis
CFI	Comparative Fit Index
<i>d</i>	Cohen's measure of effect size
$\Delta$	Delta (cap); increment of change
<i>df</i>	Degree of freedom
FCQ	Facilitating Condition Questionnaire
FF	Fear of failure
KMO	Kaiser-Meyer- Olkin
<i>N</i>	Total sample size
NNFI	Non-normed fit index
<i>p</i>	<i>p</i> -value
<i>r</i>	Pearson product-moment correlation
$R^2$	Square of the correlation between the response values and the predicted response values
<i>Adjusted R<sup>2</sup></i>	Adjusted R square, takes into account the number of independent variables and the number of participants in the multiple regression
RMSEA	Root mean square error of approximation
MSLQ	Motivated Strategies for Learning Questionnaire
SC	Self-concept
<i>SD</i>	Standard deviation
SE	Self-efficacy
<i>SE B</i>	Standard error (of measurement)
<i>t</i>	Computed value of <i>t</i> test
$\chi^2$	Chi-square



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## CHAPTER ONE

### Introduction

I was born in a traditional Chinese family. My parents had high expectations of my performance in school, both in moral and academic development. From the time I was very young, they told me that it was essential that I complete primary school, secondary school and university. They didn't mind spending large amounts of their resources (effort and money) in order to provide me with the best educational opportunities possible. Intelligence and academic achievement are of the greatest concern to Hong Kong parents, and the pressure to excel starts from birth (Salili, 1996). Because of our highly competitive education system, educators and parents are concerned about students' academic achievement. Therefore students' motivation to learn has become an issue for parents, school teachers, and academics in recent studies.

Students' academic achievement is not only affected by parents, teachers and peers, but also is related to their academic self-concept and sense of self-



efficacy. Fear of academic failure may also affect Chinese students' academic achievement reported by recent studies (Chong 2007; Eaton & Dembo, 1997). Students' self-concepts reflect the attitudes of significant others (parents) and are developed from positive and negative experiences impacting on self-construal. Educational policy is also a significant environmental factor affecting students' academic outcome. In this regard, the present study was designed to explore how and whether socio-cultural factors (peer support, parent support, and teacher support) and cognitive factors (self-efficacy, self-concept and fear of failure) predict academic outcomes in English language and Chinese language.

Education is the crucial factor to secure upward mobility and improves quality of life. United States Department of Labor, Bureau of Labor Statistics (2005) reported that "In the United States, among individuals aged 25 years and older, those with a college degree earn almost twice as much as those with only a high school diploma. A large-earnings disparity has also been found in Hong Kong between individuals with a college degree and those lacking one (Choi, 2000; Rao et al., 2000)." (p.86). The difference suggests that accomplishing at least a



college education is crucial to an individual's future occupational success in Hong Kong. Given this reality, it is significant to figure out which factors are affecting student achievement. This study investigates whether self-perceived academic support from parents, teachers, and peers, and self-efficacy, self-concept and fear of failure contribute to higher levels of academic achievement among Hong Kong secondary students specifically in the areas of Chinese and English language learning.

### **1.1. Significance of the Study**

The present study seeks to advance our understanding of Hong Kong secondary students' language learning motivation in several ways.

First, as most of the existing research about the relationships among self-concept, self-efficacy, fear of failure, academic achievement, learning and motivation is grounded in Western theorizing that may neglect important non-Western characteristics and values, it is important to conduct research in non-Western cultures. There may be different cultural determinants of academic



achievement in Western and Asian societies. Academic achievement in this study refers to students' performance in school, as measured by their grades in the two core academic subjects (English language and Chinese language). Are self-construals such as self-concept and self-efficacy beliefs, and fear of failure, relevant in Chinese culture? The present study will broaden the insights of the Chinese students' self-development and the relationship to the motivation of their language learning.

Second, two important factors contribute to students' academic achievement: internal and external. In intrapsychological processes, the internal factors include students' achievement motivation and academic self-concept (Dweck, 1986; Marsh and Yeung, 1997; Nicholls, 1984). The external factors relate to socio-cultural contexts, such as family, school, and culture (Christenson, Rounds & Gorney, 1992; Entwisle, 1990; Epstein, 1983; Lam, 1997; Stevenson & Baker, 1987; Stevenson & Lee, 1990). Students' intrapsychological processes i.e., achievement orientation and the significant others i.e., parents, teachers and peers can influence students' achievement outcomes (Furman & Buhrmester, 1992; Goodenow, 1993; Wentzel, 1998). The present study



examines the intrapsychological processes in students' self-efficacy, self-concept and fear of failure. In addition, the external factors in socio-cultural context, students' peer support, parent support and teacher support will also be included in Hong Kong context.

Third, previous studies posited that student achievement is influenced by a variety of factors. Most of the studies examining student achievement have focused on one source of influence in parents, teachers, or peers individually (Furman & Buhrmester, 1992; Stevenson, Chen & Lee, 1993; Wentzel, 1998); a few studies have investigated how these three support systems simultaneously influence academic outcomes. The present study seeks to provide valuable information regarding how these three support systems affect Chinese students' motivation for language learning.

Fourth, the exploration of motivational constructs has both theoretical and pedagogical significance for students' language learning. The study will extend the theoretical discussion of motivational constructs (Kuhl, 1984; Pintrich, 2000, 2004) to examine whether the three cognitive constructs and socio-cultural



constructs can predict student's language learning. If it can, the study will provide some preliminary insights into the underlying structure of motivational constructs in Hong Kong Chinese students' learning behavior and a Hong Kong Chinese model in students' language learning. The present study examines whether and how students' cognitive factors including self-efficacy, self-concept and fear of failure, and the socio-cultural constructs including peer support, parent support and teacher support predict students' academic achievement. These factors have been rarely assessed together in previous studies regarding language learning.

Fifth, the findings of the research will provide a more comprehensive understanding of students' psychological drives in language learning. As McGroarty (2001) indicated the need for more research examining motivation-related aspects of second language learning, the study may add to our understanding of the students' motivational regulation that has been less explored to-date in the field of Educational Psychology.



Sixth, typically, boys are more valued than girls in traditional Chinese culture, and parents prefer boys rather than girls in Chinese history. Parents have high expectations for their children's academic performance especially boys more than girls. It is significant therefore to know whether there are gender differences in the motivation and achievement of students' language learning in the present study.

Seventh, this research may also provide researchers, policy makers, education practitioners, and parent's in-depth information about how the socio-cultural and cognitive factors predict students' motivation of language learning. The findings of the study may help teachers to make better and more specific informed decisions regarding lesson planning and curriculum design that would lead to enhanced motivation in students' language learning, especially in their second language learning.

Finally, the results of a regression model may provide a more comprehensive understanding of students' motivation for language learning by indicating the multiple components that are essential for students' language learning such as



motivational beliefs (i.e., self-efficacy, self-concept and fear of failure), and socio-cultural factors (i.e., peer support, parent support and teacher support).

## **1.2. Background of Current Study**

In studies of the past few decades, the conceptualization of the self has been shown to be different in Western and Eastern societies. Asian self-perception has been found to relate to characteristics associated with group membership and identity. Hong Kong adolescents have emphasized a family and moral dimension in their self-definitions (Cheng, 1997). In other studies it has also been found that Hong Kong students who had a high self-esteem were found to experience more family support, because cohesive families encourage open communication, greater independency and self-sufficiency (Cheung & Lau, 1985). However, more empirical exploration is needed into the motivational and self-beliefs of Chinese students.





### *1.2.1. Influence of Confucianism on Chinese Values*

Among the potential influences on Chinese student's motivational and self beliefs is Confucianism. Confucian thought has a number of principles that may influence how student's conceptualize the act of learning, their self-concept as learners, and their motivational values (Bond & Hwang, 1986; Redding & Wong, 1986). Socialization within the family unit according to Confucian principles means the promotion of education, and the acquisition of skills and seriousness about tasks, and family obligation. These values help the group, preserve hierarchy in relationships, and the importance of honouring these relationships, and in giving or preserving 'face'.

The social values in Hong Kong that are often named neo-Confucian include diligence, a focus on achievement, self-reliance, competition and the promotion of family over individual interests (Morris, 1995). In this social environment, children are expected to work hard in school and in the workplace to honour the family, and through gainful employment support their parents (Sweeting, 1998).



Such Chinese values may shed light on some of the components that explain Chinese secondary students' motivational beliefs.

### *1.2.2. Collectivism and Schooling in Hong Kong*

Chinese collectivism involves hierarchical relations with others, with individuals forming part of a community, such as family or school class (Carless, 2011). Parental beliefs play a significant role in children's education. Hong Kong parents influence their children and also indirectly push principals and teachers in the directions they favour, i.e., "parents exert massive pressure on their children to do well in school. Homework is supervised and extends for long periods...tutors are hired..." (Bond, 1991, p.18).

In addition, parents regard education as the main route for upward social mobility and aspiration for education becomes internalized in the minds of both parents and students (Cheng, 1997). Parents strive to enroll their offspring in the most prestigious schools to maximize the possibility of reaching the next rung on the educational ladder (Carless, 2011).



### *1.2.3. Exploration of Motivational beliefs in Chinese Students*

Teachers are the most influential agent in promoting self-esteem, interest, and academic performance in the school context (McInerney, 2007). Teacher support and involvement has been shown to be a salient feature of the classroom environment in Hong Kong. Unlike Western research demonstrates that teacher is likely to be a weak agent in enhancing academic achievement beyond family variables (Scarr & Thompson, 1994), it is teachers rather than parents who are more influential on students' learning in Hong Kong, which might reflect the culture-specific features of the teacher-centered classroom environment (Lee, Yin & Zhang, 2000). This finding might indicate that teachers could influence students' learning in Chinese culture. In other words, enhancing teachers' support can increase students' motivation to learn. Moreover, positive peer relationships play a crucial role in the development of adolescents. Peers are a source of support in cooperative interactions, such as sharing valuable intellectual thinking and resources such as notes and strategies, and modeling academically desirable behavior and learning skills (Wentzel,



1993a). In Hong Kong, parents seem to be more influential than peers in shaping the lives of adolescents (Chen, 2005).

### **1.3. Research Objectives**

In a Confucian-heritage based education system, passing examinations is very important. Because of this, Asian students generally study hard and perform well in examinations (Ho, Peng & Chan, 2001). Academic achievement is an important goal for the Chinese (Salili, 1994). Investigation on the effects of psychological components and socio-cultural influences on exam success is therefore important in understanding Chinese students' school achievement.

The present study examines how socio-cultural factors (i.e., parental support, peer support and teacher support) and cognitive factors (i.e., self-efficacy, self-concept and fear of failure) predict students' learning outcomes (i.e., academic achievement in English and Chinese).



#### **1.4. Organization of the Dissertation**

Chapter one introduces the significance and the background of the study is provided. Chapter two is devoted to a literature review of the background of the present study. Chapter three is devoted to the literature review of previous studies about the self-processes including self-efficacy, self-concept and fear of failure. Chapter four is focused on the facilitating conditions including teacher support, parental support, peer support and other predictors. Chapter five is focused on the role of Chinese culture and Confucian-heritage education and the research questions of the present study. Chapter six describes the research methodology, measures, procedures, and pilot study of the research. Chapter seven presents the results relating to the construct validity, and reliability of the measures and the regression model of the present study. Chapter eight provides the discussion of the main findings of the present study. Chapter nine provides the implications and recommendations, further research development, the limitations of the study and the conclusion section.



## **CHAPTER TWO**

### **Background of the Study:**

#### **Language of Instruction of Hong Kong Education System in Relation to Students' Motivation in Language Learning**

Chapter two provides an overview of the Hong Kong education policy in language of instruction in order to discuss how policy may affect students' language learning (in Chinese language and English language). This chapter reports on Hong Kong language policy, the significance of English and Chinese languages learning as key elements in Hong Kong school curriculum and how the students' motivation are related to their language learning.

Culture and education are the major means through which existing social relations are reproduced. "Linguistic relations are always relations of power" (Wacquant, 1989, p.46). After the colonial transition, linguistic shifts are



reflected in the school curriculum of Hong Kong, for instance, the changes in language patterns are to fulfill the future needs (Kataoka & Fu, 1996; Kwo, 1992; Lord & T'sou, 1985). In addition, language learning is significant in Hong Kong school curriculum, that is English language and Chinese language are two significant school subjects. These two subjects determine students' entry to university (Adamson & Lai, 1997). In last two decades three main language policies have been implemented in Hong Kong schools, namely Biliteracy and Trilingualism Policy, Medium of Instruction Guidance for Secondary Schools and Fine-tuning the Medium of Instruction for secondary schools. These policies of languages of instruction affect students' language learning.



## 2.1. The Education Policy of Language of Instruction

### 2.1.1. Biliteracy and Trilingualism Policy

The former Chief Executive of Hong Kong, Mr. C. H. Tung in his first policy address in October, 1997 addressed the “Biliteracy and Trilingualism policy”, thus, people of Hong Kong are expected to be able to write Chinese and English and speak Cantonese, English and Putonghua (Lai, 2005; Tung, 1997). The Curriculum Development Institute (2001) launched an education reform to improve learning and language policies. The relationship between Cantonese, English and Putonghua was addressed in the government’s goal of establishing a ‘biliterate and trilingual’ society (biliteracy in English and Modern Standard Written Chinese; trilingualism in spoken Cantonese, Putonghua and English), together with goals such as the development of critical thinking, problem-solving, creativity and information technology skills in the preparation of the students to face the economic challenges of globalization. Lambert (1992) posited a positive self-concept and motivation to learn and maintain both first and second languages are central to the development of bilingual proficiency.





### *2.1.2. Medium of Instruction Guidance for Secondary Schools*

The Education Department (1997) issued the ‘Medium of instruction guidance for secondary schools’ and the policy was regarded as compulsory and required for all Government and Government funded secondary schools from 1998, but the choice of Medium of Instruction was left to schools and parents. Under this policy, most of the schools should adopt Chinese as medium of instruction because Chinese for most of the student is their mother tongue. The intent of the Guidance was detailed in the form of several policy objectives: “ (1) Enable students to learn effectively, to be biliterate and trilingual. (2) Commit to promoting mother-tongue teaching. (3) Introduce measures under the Guidance, to enable schools and parents to see for them the benefits of mother-tongue teaching. (4) Strengthen the teaching and learning of English in schools using Chinese as the Medium of Instruction. (5) Monitor the progress to see how best to achieve the ultimate objective of the language policy” (Kan & Adamson, 2010, p.171).



### *2.1.3. Fine-tuning the Medium of Instruction for Secondary Schools*

The Fine-tuning of the Medium of Instruction for secondary schools had three objectives: (1) Increase exposure to English for Secondary 1 to Secondary 3 students. (2) Allow greater school-based autonomy on the choice of Medium of Instruction. (3) Remove the differentiation between Chinese as Medium of Instruction and English as Medium of Instruction schools (Education Bureau 2009a). The policy encourages schools to teach more English and teach more subjects in English.

## **2.2. Language of Instruction Affects Students' Language Learning**

### *2.2.1. English and Chinese Languages as Key Elements in Hong Kong Schools'*

#### *Curriculum*

**English** and Chinese languages are two important subjects that affect students' **university** entrance. Adamson and Lai (1997) emphasized that English language **retains** a significant role in the school curriculum in Hong Kong after colonial **transition**. English language is significant because it is a key element in



assessment for placement in secondary education and entry to tertiary education. One study reported that about 90% of Hong Kong secondary schools offered English programmes, thus the standard of English becomes a determining factor for entering the universities (Lai, 2001). Hong Kong students begin to learn English at age three in the kindergarten. They have to take a public examination in Secondary five in the old syllabus, and they are required to pass both English and Chinese language subjects. For those students who desire to further their education at the university level, they must pass the two language subjects at the university entrance examination (Chan, 2002). English is seen as an important tool in obtaining tertiary education and eventually having a good job, therefore the mother tongue (Cantonese) teaching has received resistance from parents and schools (Salili & Lai, 2003). Nevertheless, Chinese language and English language are two essential subjects in the primary school curriculum for the purpose of determining entry into secondary school and university (Adamson & Lai, 1997).



### *2.2.2. The Importance of English Language Learning*

As mentioned earlier, English is the colonial language, and it might be expected to decrease in importance after transfer of the sovereignty of Hong Kong from the United Kingdom to China, but English is the language that dominates the world (Lai, 2005). English is becoming more and more widespread internationally (Chan, 2002) for international communication, business and academic study. Hence, English Language was the colonial language, which was introduced into the school curriculum (Adamson & Lai, 1997). Cummins (1979) predicted that students in English language schools should excel in all school subjects. Cummins (1979) also mentioned that students attending high schools taught in English usually have very good Chinese proficiency, they are highly motivated to learn English, and highly motivated to maintain and develop their Chinese skills. In addition, students receiving instruction in English produced better English achievement (Johnson, 1997).

The Hong Kong Government had attempted to replace English-medium of instruction and to bring decolonization immediately after the change of



sovereignty, but this effort was met with great resistance from parents because the role of English gate keeping remains unchanged (Lai 1999; Tsui et al., 1999). Parents strongly believe that English-medium education has greater prestige and economic returns, in terms of the access to academic achievement, financial success and the principal determinant of social mobility (Adamson & Lai, 1997).

### *2.2.3. The Importance of Chinese Language Learning*

Chinese language became an official language in Hong Kong in 1975; it has equal status to English. The subject was renamed as “Chinese Language” (中國語文). The Chinese put emphasis on the development of practical language and communicative skills (Auyeung Lai, 1987). Chinese Language is one of the core subjects of Hong Kong Diploma of Secondary Education (HKDSE) to enter Hong Kong universities.

Even though English language as medium of instruction is essential to students’ school learning, especially in the elite schools, Cantonese is the mother tongue



of Hong Kong students. In the Education Commission Report No. 6, it is assured that “Each student was educated through a medium likely to lead to maximum cognitive and academic development. English should be used as a medium of instruction when students could benefit from it” (Education Commission, 1990, p.96). That is, Cantonese is the mother tongue and it is the most effective medium of instruction to promote students’ learning. Previous studies showed that non-English speaking students learn better in their native language, especially in achieving competence in English (Marsh et al., 2000; Thomas & Collier, 1997). Hong Kong students learn better in their first language, Cantonese even in studying English language.

In addition, The Education Commission Report No. 6 also mentioned “Some students have difficulties with learning in English. Students can study effectively in English only when they have passed certain threshold of language competence in both their mother tongue and in English” (Education Commission, 1990, p.94). From the government’s perspective, teaching in the mother tongue facilitated student learning, and students learning in the mother tongue performed better in the public examination results than students learning



in English (Hong Kong Government, 1990; Hong Kong SAR Government, 1997). Gibbon (1989) and Johnson (1997) indicated that instruction in Chinese was more effective than instruction in English because students understood Chinese better and instruction in English was disadvantageous for lower ability students. Because of parental pressure, some schools remained English language schools, but teachers used a mixture of English and Chinese (Cantonese). The following study stated that parents believe their students are more motivated to learn using mother tongue, but parents also insist their children must learn in English.

“A study of parents' and students' attitudes toward mother-tongue education reveals that two-thirds of parents, and an even higher percentage of students (71.8%), surveyed agreed that learning would be more effective in one's mother tongue. Over one-half of the parents and four-fifths of student respondents believed that students would be more motivated to learn using their mother tongue (Hong Kong Standard, 19 September 1997). However, parents remained adamant that their children should learn in English. In a telephone survey conducted by the Hong Kong Policy Research Institute, about 70% of respondents said that they would prefer to send their children to English-language secondary schools (Sun Pao, 15 March 1998)”

(Chan, 2002, p.278).



### **2.3. Language Learning and Motivation**

Cognitive perspectives of motivation indicate that students' learning behavior is an internal process (Pintrich, 2003). One of the cognitive factors in motivation, self-efficacy, is hypothesized to affect task choice, effort expenditure, and perseverance. Self-efficacy serves as an influential predictor of achievement regardless of ability level, gender or age (Condly, 1999). High degree of value for success positively relates to task choice (Bandura, 1986), and students' task value beliefs are affected by their cultural background, such as families and schools which might have a great impact on learning and performing a task (Pintrich, 2003; Zusho, Pintrich & Coppola, 2003).

Stevenson, Lee, and Stigler (1986) found that Asian families stress educational success. Many children are educated to fulfill family expectations, whose needs exceed by far their individual needs. For some Asian students, learning a foreign language at school is equivalent to learning any other critical skill that may be useful in the future (Okazaki & Sue, 1990). Self-efficacy might not be able to predict to Asian students' achievement. It is because past research had





revealed that Asian Americans showed lower levels of self-efficacy beliefs than their non-Asian counterparts despite their high achievement (Gan, et al., 2004). However, Asian American students outperformed non-Asian students on achievement tasks. Fear of academic failure might better predict Asian American achievement than did self-efficacy in the study. Non-Asians overestimated their own capability, but Asians underestimated their capability (Oettingen, Little, Lindenberger, & Baltes, 1994). In the present study, fear of failure is believed to be a significant factor to investigate Chinese students' learning motivation related to their language development.

Asian students attribute their academic success and failure primarily to effort and ability. Thus, they are more willing to devote more time and effort to enhance their foreign language proficiency (Gan et al., 2004; Holloway, 1988; Salili, 1996; Shimahara, 1986; Skinner, Wellborn, & Connell, 1990; Uba, 1994; Yang, 1986). Some students are more motivated to avoid failure than to learn what is being taught in class. In addition, need for achievement is found to contribute positively to motivation in second language learning (Dornyei, 1990).



The present study investigates the relationship between motivation and students' language learning.

This chapter illustrates the Hong Kong language policy in order to introduce the importance of how the policy may affect students' Chinese and English language learning. Particular attention has been given to how students' perception of their academic ability in English language and Chinese language relates to academic achievement. These two subjects have been selected as the target subjects in the present study. Under this educational setting, Chinese language and English language are the core subjects to access university and fulfill family expectations, therefore, investigating how students' self-processes such as self-efficacy, self-concept and fear of failure influence students' Chinese and English language learning might help improve students' academic achievement. Other significant socio-cultural factors, peer support, parent support and teacher support might also influence students' language learning. The next two chapters explain the Social Cognitive Theory and the self-processes and the socio-cultural factors in detail.



## **CHAPTER THREE**

### **SELF-PROCESSES: THE IMPACT OF SELF-EFFICACY, SELF-CONCEPT, AND FEAR OF FAILURE**

#### **3.1. Theoretical Framework**

Social Cognitive Theory provides the theoretical framework for this study.

Social Cognitive Theory refers to the dynamic interplay of personal influences (thoughts and beliefs), environmental elements, and human behaviours (Bandura, 1986 & 2001). In particular, human behaviour is affected by environments through the self-system. For example, self-efficacy drawn from Social Cognitive Theory is considered as a major factor related to achievement (McInerney, 2011).

Most of the theorizing related to Social Cognitive Theory is Western and measures used to evaluate levels of personal characteristics such as self-efficacy, and self-concept have been developed in the West without considering the indigenous characteristics of Asian cultures and more specifically Chinese



students. Potential cultural differences should therefore be considered when adopting such a theoretical framework. The present study aims to expand on Bandura's (1986) Social Cognitive Theory with a view to first, validating the measurement constructs drawn from Social Cognitive Theory for the Chinese participants, and second, examining the heuristic value of a regression model for predicting Hong Kong student's language achievement. In particular the study tests a regression model in which academic achievement in Chinese and English languages are regressed on socio-cultural factors and self-processes (cognitive factors).

Perceptions of self and relationships with others are different in Western and Eastern cultures (Hamamur, 2011). Students from individualistic and collectivistic cultures place emphasis on different things when it comes to their self-representations. The roles of family and society, and the resulting self-perceptions have been shown to have a permeating influence on the psychological processes of cognition and self-regulation of the students (Markus & Kitayama, 1991). The concept of self in Western cultures is relatively more individualistic, egocentric and self-contained, reflecting an



independent construal of the self (Markus & Kitayama, 1991). But in Eastern cultures, self is correlated to social context and is more connected and less distinct from others. People are motivated to get along well with relevant others and to develop interpersonal relationships, reflecting an interdependent construal of the self (Markus & Kitayama, 1991), and these different self-concepts are affected by cultural heritage. The collective societies in Eastern cultures will be discussed in Chapter Five.

### **3.2. Social Cognitive Theory**

The theoretical framework of the study is based upon Social Cognitive Theory; therefore, a widely accepted definition of Social Cognitive Theory is presented.

The construct associated with Social Cognitive Theory, such as motivation is outlined and the chapter concludes with three constructs related to Social Cognitive Theory: self-efficacy, self-concept and fear of failure.

According to McInerney (2000), motivational processes can be understood from four theoretical perspectives, namely: Social Cognitive Theory, Cognitive



theory, Behavioural theory, and Humanism. Social Cognitive Theory proposes a view of motivation that emphasizes human agency whereby individuals are agents proactively engaged in their own development and who make things happen by their actions (Bandura, 2000). Social Cognitive theory also emphasizes mental processes and perception and the social context of motivation, including the social and emotional support of significant others, such as parents, teachers, and peers (McInerney, 2000). It provides an essential theoretical platform for this research. In the following sections I will elaborate on three theoretical perspectives and constructs that guide the research.

### **3.3. Definition of Social Cognitive Theory**

Accepted definitions of Social Cognitive Theory include “A view of human functioning that accords a central role to cognitive, vicarious, self-regulatory, and self-reflective processes in human adaptation and change...Human functioning is viewed as the product of dynamic interplay of personal, behavioral, and environmental influences (Bandura, 1986).” (Pajares, 2002, p.1).

Bandura postulates that human achievement depends on interactions between



one's behaviors, personal factors (e.g., thoughts, beliefs), and environmental conditions. Thus, it is worthwhile to examine how cognitive (personal), behavioural, and environmental factors interact to determine a person's motivation and behaviour (Crothers, Hughes & Morine, 2008). The interaction of all three factors in human functioning has been called the Triadic Reciprocal Determinism model (Wood & Bandura, 1989). Hence, for Bandura (1977, 1986) a sense of personal efficacy is a main factor in the exercise of human agency within a causal structure involving triadic reciprocal relations between the person, the environment, and behavior. Numerous factors that play a role in human behaviour have been identified, for example, culture, attitudes, emotions, values, ethics, authority, rapport, hypnosis, persuasion, coercion and/or genetics. One of the most important factors is a persons' motivation.

### *3.3.1. Motivation and Social Cognitive Theory*

The word "motivation" is derived from the Latin root of "motive" which means "to move". Most theories about motivation propose motivation as the "engine" that moves organisms to act (McInerney, 2000; Pintrich & Schunk, 2002) and



influences individual behaviour (McInerney, 2000). Motivation is something that gets us going, keeps us moving, and helps us complete tasks (Pintrich & Schunk, 2002). Highly motivated students, for example, are found to pay more attention to learning processes and outcomes (Bouffard-Bouchard, Parent, & Larivee, 1991). In contrast, students with poor motivation are found to have low self-esteem, feel insecure about their ability to fit in at school or other learning environments, and express subjective perceptions of school, specifically that it was not for them (McInerney, 2000).

### **3.4. Construct One: Self-efficacy**

#### *3.4.1. Self-efficacy Beliefs Influence Human Functioning*

At the core of Social Cognitive Theory are beliefs about self-efficacy. Bandura explains self-efficacy as “People’s judgments of their capabilities to organize and execute a course of action required to attain designated types of performance” (Bandura, 1986, p.391). Self-efficacy therefore, strongly influences the choices people make, the effort they expend, and how long they persevere in the challenge (Pajares & Miller, 1994) and can provide an





explanation for actions in addition to predicting one's thoughts and emotions. Furthermore, an individual's beliefs about what they can do with whatever skills and abilities they possess (Bong & Skaalvik, 2003) has been attributed to self-efficacy. Self-efficacy beliefs also determine how much effort people will expend on an activity, how long they will persevere when confronting obstacles, and how resilient they will be in the face of adverse situations.

Bandura's Social Cognitive Theory adopts an agentic perspective. Individuals are producers of experiences and shapers of events. Human agency is characterized by a number of core features that operate through phenomenal and functional consciousness. These include the temporal extension of agency through intentionality and forethought, self-regulation by self-reactive influence, and self-reflectiveness about one's capabilities, quality of functioning, and the meaning and purpose of one's life pursuits (Bandura, 2001). Social-cognitive theory distinguishes three different forms of agency, personal, proxy, and collective. Human agency centers more on the direct exercise of personal agency, cognitive, motivational, effective, and choice processes through which effects are exerted (Bandura, 2000, 2002).



The higher the sense of efficacy, the greater the effort, persistence, and resilience. People with a strong sense of personal competence approach difficult tasks as challenges to be mastered rather than as threats to be avoided. They have greater intrinsic interest and deep engrossment in activities, set challenging goals and maintain strong commitment to them, and heighten and sustain their efforts in the face of failure (Pajares, 2002). Thus, people tend to select tasks and activities in which they feel competent and confident and avoid those they are not familiar with. Unless they believe that their actions will have the desired consequences, they have little incentive to engage in those actions.

#### *3.4.2. Academic Self-efficacy in Achievement*

Academic self-efficacy refers to individuals' conviction that they can successfully perform academic tasks at designated levels of competence (Schunk, 1991). The assessment of academic self-efficacy refers to tasks that provide respondents with a specific description of the performance required and is a referent for students to appraise their competence.



Schunk (1989b) indicates how self-efficacy might operate during academic achievement. “Initial self-efficacy varies as a function of aptitude (e.g., abilities and attitudes) and prior experience. Such personal factors as goal setting and information processing, along with situational factors (e.g. rewards and teacher feedback), affect students while they are working. Motivation is enhanced when students perceive that they are making progress in their learning” (p.2). There is evidence to suggest that self-efficacy is associated with indices of motivation. When individuals feel efficacious, they work harder and persist longer when they encounter difficulties than individuals who doubt their capabilities. For example, perceived self-efficacy for learning correlates positively with students’ rate of solution of arithmetic problems (Schunk & Hanson, 1985; Schunk, Hanson & Cox, 1987)

Schunk (1991) states that self-concept was a global construct comprising self-efficacy and other aspects of the self, therefore, the next section of literature, is focused on the second construct of importance in orientating students’ effective engagement in learning, namely, self-concept.



### **3.5. Construct Two: Self-concept**

Prior to the 1980s, self-concept was broadly defined as a person's perceptions of one's self. Shavelson, Hubner, & Stanton, (1976) defined self-concept as a person's self-perceptions formed through experience with and interpretations of his or her environment. A person's self-concept is influenced by evaluations of significant others, reinforcements and attributions for one's own behaviour. In the 1990s, self-concept was described as a product of reflexive activity, particularly that an individual has a concept of himself as a physical, social, and spiritual or moral being (Marsh, 1990a). Self-concept is regarded as a highly important and influential factor associated with people's behaviours and various emotional and cognitive outcomes such as academic achievement (Branden, 1994). It is one of the most significant psychological constructs in behavioral sciences (Marsh & Craven, 2006). Past studies have suggested that positive self-concept is strongly related to achievement, and many educational policy statements also highlight self-concept enhancement as a principal goal of education, and emphasize self-concept as an important factor that facilitates the accomplishment of other desirable learning outcomes (Craven, Marsh &



Burnett, 2003; Marsh, Koller & Baumert, 2001). Academic self-concept and achievement are the factors investigated in the present study.

### *3.5.1. Academic Self-concept*

From Marsh and Shavelson's perspective (Marsh & Shavelson, 1985), self-concept can be divided into two factors; academic and non-academic self-concept. "Academic self-concept is the perception of oneself in academic activities in relation to specific subjects, teachers and school, while non-academic self-concept is about perceptions of oneself in non-academic activities which includes physical self and relations with parents, friends, and community" (Tang, 2011, p.123). This multidimensionality characteristic is further explored in the next section.

Marsh (2007) showed that academic self-concept was more highly correlated with academic achievement and behaviors. Support for the belief that there is a significant relationship between academic self-concept and academic achievement in secondary and post-secondary students was found by Gordon



(1997), Cokley and Patel (2007), and Yara (2010), however, according to Hattie (1992) and Byrne (1996) the issue of whether academic self-concept affected academic achievement or rather academic achievement affects academic self-concept could not be resolved. In Yara's (2010) study, students' self-concept and Mathematics achievement in secondary school indicated that students with good self-concept performed well in Mathematics. Cokley (2000) found the grade point average was the best predictor of academic self-concept for students attending universities.

As shown in some studies (Marsh & Yeung 1997; Valentine & Dubois, 2005), academic self-concept and achievement are positively and reciprocally related, that is, a high academic achievement is likely to lead to a high self-concept, and a high self-concept is likely to lead to high academic achievement (Marsh & Yeung 1997; Valentine & Dubois 2005). Marsh and Craven (2006) and Seaton, Marsh, and Craven (2010) posited achievement in specific academic domains is correlated with the corresponding specific domains of self-concept. In other words, academic self-concept should be correlated with both school grades and standardized test scores, because schools grades are a main feedback to students



and reflect motivational properties, which relate to self-concept (Hattie, 1992; Marsh, 1987, 1990a, 1990b, 1993). When students are confident of performing well on their exam, they would pay more effort in studying and have higher persistence, and thus attain higher achievement (Marsh, et al., 2002).

In the present study, I examine whether students' English and Chinese academic self-concepts predict their achievement in English and Chinese, respectively. English and Chinese were chosen in the present study because these two subjects are core subjects for University entrance and the English and Chinese self-concept scales have been well established with good reliability and validity (Byrne, 1988; Marsh, 1992; Marsh & O'Neill, 1984).

### *3.5.2. Research Focus of Self-concept*

Two themes of inquiry emerge from research related to self-concept; the structure of self-concept and the sources of self-concept (Rosenberg, 1979; Marsh, 1992; Marsh & Shavelson, 1985). The following sections examine these related themes in more detail.



*a) Structure of Self-concept*

According to Marsh (1992) self-concept consists of two basic domains, academic and non-academic. Each of these decomposes into different domains, such as academic ability, social ability, and physical appearance, emotional and general ability, which are arranged hierarchically. Academic self-concept consists of self-concepts in particular subject areas, for example Math, English/Chinese. The present study investigates students' English and Chinese self-concepts.

Marsh further developed the self-concept model as multidimensional and hierarchical. He posited that self-concept is a domain-specific construct (Marsh, 1990a; Shavelson, Hubner, & Stanton, 1976) in which global self-concept is at the top of the hierarchy and it is divided into academic and nonacademic components. The academic domain is divided into self-concepts specific to school subjects, including English and Chinese language, whereas the non-academic domain is divided into physical, social, and emotional components. Marsh believes that specific components of self-concept should have more predictive power on outcomes in specific domains than a single, global





component of self-concept. Research in education indicates that academic achievement is more correlated with academic self-concept than global self-concept, and that achievement in specific domains should be correlated with the corresponding specific domains of self-concept (Marsh & Craven, 2006; Seaton, Marsh, & Craven, 2010). Hence, in this study, I relate Chinese self-concept to Chinese language achievement and English self-concept to English achievement. I also examine the cross-language effects.

High self-concept does not imply that students feel highly confident in all academic areas. Students might judge their competence as high in science and mathematics, moderate in English and social studies, and low in French. Within the area of mathematics, students might have a strong self-concept about algebra but not geometry. Meanwhile, self-perceptions of specific behaviours presumably influence sub-area self-concepts (e.g., English or mathematics), which in turn combine to form the full academic self-concept (Schunk, 1991). In this study participants may have a high self-concept in Chinese language and a lower self-concept in English language. Alternatively they might be high or low in both. Marsh's internal frame of reference theory suggests that albeit



performance in both languages may be relatively equivalent, if a student holds a high self-concept in Chinese then his or her self-concept in English may be lower. In other words, subjectively the student will appraise his performance as better in one than the other, and therefore appraise his or her self-concept as higher in that area (Marsh, 1990a). In this study it is highly likely that in the participating schools students' self-concept for Chinese will be higher than their self-concept in English as the language of instruction is Chinese.

*b) Sources of Self-concept*

The second theme focuses on the sources of self-concept and the relative importance of the different sources in self-concept formation. Rosenberg (1979) posited that self-concept was defined as a composite view of oneself, "The totality of the individual's thoughts and feelings has reference to himself as an object" (Rosenberg, 1979, p.7). Furthermore, he also mentioned that "There is probably no more critical and significant source of information about ourselves than other people's view of us" (Rosenberg, 1979, p.7).



Self-evaluation is one of Social Cognitive Theory's components. Self-evaluation compares an individual's current performance with a desired performance of goal. There are two types of self-evaluation standards: absolute and normative. Other sources of self-concept are self-evaluation, which is based on social comparison (Festinger, 1954). A social comparison whereby one evaluates one's behavior or performance against another individual is an example of a normative standard of self-evaluation (Zimmerman & Schunk, 2001). Comparing self to peers, enables the individual to come to know how they stand. Another source of self-evaluation comes from feedback or evaluations by others, including significant others, for example, parents, peers, and teachers, whose opinions are of great importance to and have a great influence on children (Rosenberg, 1979; Zigler & Child, 1969). In the present study, the relationship of significant others, specifically parents, teachers and peers to self-concept and achievement is investigated.



### 3.5.3. *The Meaning of Self in Chinese History*

The literature pertaining to Chinese self-concept derives from Confucianism, one of most influential schools of philosophy in Chinese culture. Chinese self-concept has been positively recognized (correlated) with Confucianism (Yu, 1976; Chen, 1987). “An individual’s self, identity, and roles derive meaning from his/her relationships with others. This has created a “big self” (大我) and a “small self” (小我). The big self is put before the small self, and the big self is concerned with family and society. Self-concept in Confucianism has become so small that there is no self in actuality and there can be found no real self (i.e., one’s own will and wishes). There is also a notion that only allows the concept of “we”, but not “I” ” (Lau, 1997, p. 360). Filial piety is strongly emphasized in Chinese culture and it might be directly related to children’s academic achievement. Due to the collectivistic tradition of the Chinese culture, significant others’ influence (e.g., parental support) is great. In addition, family honesty and filial piety are dominant in Chinese culture; therefore parents’ support plays a significant role in children’s psychological development. Thus, it is interesting to investigate how the influence from parents, teachers and peers predict students’ self-concept. The next section of the literature review



examines the third construct used to predict students' achievement in Chinese and English language studies namely fear of failure.

### **3.6. Construct Three: Fear of Failure**

Both Western and Eastern studies on Asian students' academic achievement have indicated that fear of failure may be the main factor affecting Asian students achievement rather than self-efficacy and self-concept (Eaton & Debmo, 1997). The following sections describe fear of failure, the characteristics of fear of failure and fear of failure in the Asian context of the present study.

Many research studies show that student motivation is one of the most powerful determinants of a student's success and failure in school (Hidi & Harackiewicz, 2000, Pintrich, 2003). Two early studies speculate on students' achievement motives (e.g., Murray, 1938; Atkinson, 1957) specifically "need for achievement" and "fear of failure". "Need for achievement" means a desire to approach success and "fear of failure" means a desire to avoid failure. Students



who are high achievers take great pride in their success, but students with fear of failure experience a great deal of shame upon failing. Students' fear of failure is one construct under investigation in the present study.

### *3.6.1. Definition of Fear of Failure*

Fear of failure refers to motivation to avoid failure because of the possibility of experiencing shame and embarrassment (Caraway, Tucker, Reinke & Hall, 2003; Eaton & Dembo, 1997). Fear of failure is related to a person's performance expectation of achieving negative results (Cook & Halvari, 1999; Gjesme, 1982). For some people this is a motive to avoid situations in which shame occurs upon failure (Atkinson, 1957; Dahme et al., 1993; Elliot & Church, 1997). In Conroy, Willow & Metzler's study (2002), it was found that those who feared failure may have poor self-image or lower levels of perceived competence.

Fear of failure, as a uni-dimensional construct, focuses on shame (Atkinson, 1964) and is connected to motivation and early achievement. Contemporary



theorists such as Conroy, Willow, & Metzler (2002) view it as a multi-dimensional construct (Conroy, et al., 2002; Conroy et al, 2001). The multi-dimensional construct of fear of failure consists of five beliefs about the consequences of failure, these are; “ (a) experiencing shame and embarrassment upon failure, which is related to beliefs of self-presentational failure and personal diminishment; (b) having an uncertain future, which is related to beliefs of losing future opportunities; (c) devaluing one’s self-estimate, which is related to beliefs of having poor ability and control over one’s performance; (d) important others losing interest, which is related to beliefs of losing social value and influence in the performance domain; and (e) upsetting important others, which is related to beliefs of others’ disapproval and loss of affection following failure ” (Sagar, Boardley & Kavussanu, 2011, p.392).



### *3.6.2. The Characteristics of Fear of Failure*

Fear of failure may be conceived of as a relationship, for example, as a friend or as a foe, Martin and Marsh (2003). The idea that a fear of failure can be a friend to students is the belief that students are driven to achieve and persist in the face of challenge and adversity. By contrast, a fear of failure as a foe resonates with students who experience high anxiety, underachievement, decreased resilience, and may lead some to learned helplessness. Fear of failure has been associated with problems in achievement, mental health, moral development, and physical health (Conroy, et al., 2002).

Fear of failure has at its basis an avoidance-based motive disposition in achievement domains. As shown in the pioneering work of Murray (1938) and Atkinson (1957), fear of failure is defined as the dispositional tendency to orient toward and to seek to avoid failure in achievement settings, because one feels shame on failure. Fear of failure orients individuals either to perform better than their peers or to do better than they have in the past (Elliot & Church 1997; Elliot & Trash, 2004). Fear of failure is also the motive to avoid failure in





achievement contexts, and involves cognitive, behavioural, and emotional experiences. (Covington, 1992; Elliot & Sheldon, 1997). People with a high fear of failure strive to avoid the negative implications of failure and damage to self-worth (Thompson, Altmann & Davidson, 2004; Thompson & Perry, 2005). A study in the United States reported that both male and female students rated 'getting poor grades' and 'failing a test' were their top fears (Ollendick, 1983).

Shame is considered by Atkinson (1966) as a central component of fear of failure, a "disposition to avoid failure and/or a capacity for experiencing shame or humiliation as a consequence of failure" (p.13). In addition, McGregor and Elliot (2005) found a positive relationship between shame and fear of failure, and a positive relationship between parental shaming and fear of failure. In this context, therefore, fear of failure is a shame-based achievement motive. It involves the students' capacity to anticipate negative effects after failure such as shame and embarrassment (McGregor & Elliot, 2005).

A fear of failure has possible long-term negative effects as, according to Conroy, Willow & Metzler, fear of failure is associated with high levels of cognitive



disruption, somatic anxiety, worry, overall performance anxiety and low levels of optimism (Conroy, et al., 2002). In addition, cognitive-motivational-relational perspectives (e.g., Lazarus, 1991), have linked the fear of failure with appraisals of threats to an individual's ability to accomplish personally meaningful goals when one fails in a performance. McClelland (1958) states that a person's fear of failure as a motive is socially constructed during childhood between the ages of 5 to 9 years. A high level of fear of failure affects a students' ability across achievement contexts (Conroy, et al., 2003; Conroy & Elliot, 2004; Elliot & Thrash, 2004).

The characteristics of fear of failure have been separated into two groups, the first group characterized as the over striver, which includes students who deal with their fear of failure by hard work and/or success, and therefore they are high on both failure avoidance and success orientation. The second group is identified as the self-protector. Typically, these students deal with their fear of failure through counterproductive activity aimed more at self-protection than attaining success (Martin, 1998; Martin et al., 2001a). In other words, successful performers describe fear of failure as a factor that can motivate them



to reach a high level of performance or prevent them from actualizing their potential (Conroy et al., 2002).

Fear of failure resonates with low self-efficacy because some people who doubt their capabilities and experience high levels of fear of failure are less likely to set and work toward goals (Caraway, et al., 2003). Two studies stated that there is a positive relationship between the development of children's beliefs in their own competence and their experience of success or failure in school (Bandura, 1997; Smith et al., 2003). Schunk and Pajares (2002) have established that those who feel efficacious for learning participate more readily, work harder, persist longer when they encounter difficulties, and achieve at a higher level. And those students who are not achieving well in school have low self-efficacy beliefs.

### *3.6.3. An Asian Perspective of Fear of Failure*

The pursuit of academic success and competition are two main factors in motivating students to study hard and to meet the parental and social



expectations in East Asian cultures. Chong (2007) stated the situation in Singapore where fear of failure was “ a potential motivational force for students to strive for their academic engagement and achievement in order to save face, make one’s family proud, and meet social expectations” (p. 66).

In the present study, students’ experience of shame and embarrassment, and their experience of upsetting important others are adopted as the definitions of fear of failure because these two perspectives have dominated Asian students’ beliefs concerning fear of failure.

### *Summary*

This chapter has briefly reviewed Hong Kong language policies and the framework of Social Cognitive Theory in students’ motivation. In addition the three constructs self-efficacy, self-concept and fear of failure have been related to Hong Kong students’ motivation beliefs and their academic achievement. In the present study, the three predictors teacher support, parental support and peer support will be investigated as socio-cultural factors also potentially influencing



achievement in Chinese and English language study. The next chapter considers each of these elements.



## **CHEAPER FOUR**

### **FACILITATING CONDITIONS: TEACHER SUPPORT, PARENTAL SUPPORT AND PEER SUPPORT AND OTHER PREDICTORS**

Hong Kong students' self-perceived academic support (from parents, teachers, and peers) is related to their achievement (Chen, 2005). Chen (2005) stated that perceived teacher support to achievement is the strongest construct, followed by perceived parental support and then perceived peer support directly related to academic achievement. Perceived teacher support made the most total effect (direct and indirect) to student achievement. Perceived peer support had the smallest, non-significant and indirect relationship to academic achievement.

Recent studies have been more focused on the dimensions of parental and teacher behaviour that regulate students' motivational beliefs in education, and that may contribute to academic achievement (de Bruyn, Dekovic, & Meijnen, 2003; Gottfried, Fleming, & Gottfried, 1994; Marchant et al., 2001; Patrick, Ryan & Kaplan, 2007). Sander (1996) established positive associations among



parental support, teacher support and academic achievement correlated to perceived positive relationships amongst adolescent students. Parents, teachers, and peers are the most significant persons in the adolescents' life (Claes, 1998; Juhasz, 1989; Juhasz & Yue 1989; Lempers & Clark-Lempers 1992). Further, parents, teachers and peers' positive evaluations and acceptance enables adolescent students to evaluate themselves positively, in addition to having a higher self-concept. Students' perceptions of their home and school environments, i.e., relationships with parents and teachers, are related to their academic self-concept (Chang et al., 2003; Ireson & Hallam, 2005; Jang, 2001; Lau & Leung, 1992; Lau & Pun, 1999). Chang et al., (2003) indicated that parental warmth correlated to general self-concept and academic self-concept.

Turner (2001) suggested that the classroom context includes social elements (e.g., relations among teachers and peers), cultural elements such as norms and expectations, instructional and material elements (curricula and tasks). Social elements are the most important aspect because teachers and students, the teacher-student relationship, and students' peer relationships significantly impact upon students' motivation, engagement and achievement in primary and



middle school (Hughes & Kwok, 2007; Ryan & Patrick, 2001). What was the effect? In the following sections support from each significant other, teachers, parents and peers will be discussed.

#### **4.1. Teachers' Support Related to Academic Achievement**

School plays a central role in the life of teenagers (Vieno, Santinello, Pastore & Perkins, 2007) and teachers play a vital role in creating positive learning environments, which reinforce students' self-efficacy. According to Fan, Lindt, Arroyo-Giner, & Wolters (2009), student self-efficacy is increased when teachers provide individualized instruction. Thus, teachers affect student academic achievement (Hughes, Luo, Kwok, & Loyd, 2008) and student motivation and academic self-efficacy (Patrick, Ryan, & Kaplan, 2007). Motivational, attitudinal, and behavioural factors are associated with psychosocial well-being and adjustment, thus, these factors have been connected to students' sense of community or belonging in the school setting (Bateman, 2002; Battistich, Solomon, Kim, Watson & Schape, 1997; Pretty, Andrews & Collett, 1994). Further, the teacher-student relationship impacts





student motivation (Hughes & Kwok, 2007; Ryan & Patrick, 2001; Turner & Meyer, 1999). Moreover, the help or recognition a teacher gives to students for improving their learning reflects teacher attitude and effort (Lee, Lee & Wong, 2003). Ryan and Patrick (2001) reported that a student's perception of teacher support and the teacher as a promoter of mutual respect was significantly related to positive changes in students' efficacy.

#### *4.1.1. Teacher Support in the Hong Kong Context*

There are few studies that investigate the relationship between the classroom environment and different aspects of student learning in Hong Kong. A comparative study with senior high school students in Hong Kong and Canada, conducted by Salili, Chiu, and Lai, (2001), found that Hong Kong students displayed lower levels of self-efficacy compared to their Canadian counterparts. Salili et al., (2001) posited the harsh learning atmosphere of Hong Kong negatively affected student self-efficacy. By contrast, studies conducted in the 1990's, for example, Wong (1996), indicated the teacher was the most crucial factor in the Hong Kong classroom environment, which echoed Chen's (1994)



view that students' perceptions of some classroom environmental factors were the strongest predictors of their effective performance, including self-concept, attitude towards peers, schools and teachers. Chan and Watkins (1994) reported Hong Kong secondary students tended to prefer friendly surroundings and for their teachers to provide a greater variety of fascinating and exciting activities in their classes. A more recent study conducted by Lee, Yin, & Zhang, (2000) found high levels of teacher support and involvement were salient features of the classroom environment in Hong Kong.

The quality of teacher–student relationships and students' behavioral engagement play significant roles in the Hong Kong context. Ma, Shek, Cheung, and Lam (2000) found that positive relationships with teachers were correlated to Hong Kong students' prosocial behavior. Hong Kong has recognized that teacher support plays a significant role in students' motivation to both learn and achieve, and how students feel about their teachers support directly influences their academic performance. Studies have found that students' perceptions of teacher support are significantly correlated to their academic engagement, such



as showing an interest in learning and having motivation to strive for academic excellence (Goodenow, 1993; Wentzel, 1997; Wentzel & Asher, 1995).

#### **4.2. Parental Support Related to Academic Achievement**

Previous studies have posited that parents play a significant role in their children's education (Carter & Wojtkiewicz, 2000; Eccles, Jacobs, & Harold, 1990; Muller, 1998). Parental support refers to parents' positive involvement and investment in their children's education (Chen & Uttal, 1988; Grolnick & Slowiaczek, 1994; Hoover-Dempsey & Sandler, 1995; Sacker, Schoon, & Bartley, 2002; Stevenson & Baker, 1987). Some researchers have also stated the importance of parental influence on a child's education from the early years into adolescence (Dornbusch, Ritter, Leiderman, Roberts, & Fraleigh, 1987; Feldman & Rosenthal, 1991). Parental influence and involvement can make students feel more confident about their capabilities (Bandura, 1994). Gonzalez-DeHass, Willems, & Doan Holbein (2005) underlined the significance of parental involvement in their children's education through their participation in school activities and the parent-teacher relationship. One study emphasized that



parents' expectations had the strongest relationship with children's academic achievements (Levpušček & Zupancič, 2009).

Muller (1998) suggested that parental support contributed positively to adolescents' academic performances, in terms of better grades and higher mathematics test scores. Themes found in extant literature on the subject of parental support have emphasized parent influence on students' school performance and student academic motivation (Furrer & Skinner, 2003), "perceived parent support and family cohesion are significant predictors of students' academic motivation" (p.38). Students' feelings of association to their parents may play a positive role in encouraging academic motivation and performance (Bong, 2008; Furrer & Skinner, 2003; Wentzel, 1998 cited in Fan, Lindt, Arroyo-Giner, & Wolters, 2009). Less is known about parental influence on student academic self-efficacy in previous research.

Several investigations suggested "positive parental support inspires better grades, general academic attainment, cognitive engagement, and academic persistence among children to adolescents" (p.561) (Bell, Allen, Hauser, &



O'Connor, 1996; Cutrona, Cole, Colangelo, Assouline, & Russell, 1994, Finn & Rock, 1997; Hoffman & Weiss, 1987; Moss & St. Laurent, 2001; Peng, 1994, cited in Fass, & Tubman, 2002). On the other hand, low levels of attachment to parents, poor parent-child communication or/and relationships, (Ekstrom, Goertz, Pollack, & Rock, 1986; Finn, 1989) and low educational expectations or encouragement to children (Dornbusch, Ritter, Leiderman, Roberts, & Fraleigh, 1987; Okun, Benin, & Brandt-Williams, 1996 cited in Fass, & Tubman, 2002) have been identified as placing students at risk for poor academic outcomes.

#### *4.2.1. Parental Support in Hong Kong Context*

Chinese parents have cultural expectations regarding parental obligation. In the highly collectivistic Chinese society, parents are expected to share their children's outcomes (Stevenson & Lee, 1990). In fact, there is a common saying in Chinese culture - If a child is uneducated, his Dad is to blame (養不教，父之過). Under this cultural environment, Chinese parents may feel pressured to provide high levels of support to help their children succeed, especially for



those who underachieve (Stevenson & Lee, 1990). Parental support and the cultural element make Chinese parents participate in their children's education. Shek, Lee, and Chan (1998) indicated that what contributes to children's academic performance is how supported they feel by their parents.

#### **4.3. Peer Support Related to Academic Achievement**

Peer support is defined as planned practices where one is given defined tasks that offer a learning experience to others (Charlton, 1998). Adolescents tend to build intimate relationships with peers and often seek help from them (Parada, Craven, & Marsh, 2008; Wassef, Ingham, Lassiter-Collins, & Mason, 1995). Positive peer relationships serve an important role in adolescents' development (Ellis, Marsh, & Craven, 2009; Peer Support Foundation, 2001). Adolescent students tend to spend more time with peers and develop stronger, closer and more influential relationships with each other (Berndt, 1999; Berndt & Savin-Williams, 1993; Youniss & Smollar, 1985). United States studies found that peers affect a student's life, especially in social and emotional adjustment, educational aspirations, and behavior in school (Berndt, 1999; Berndt, Laychak,



& Park, 1990; Steinberg, Dornbusch, & Brown, 1992). A student's capabilities and self-knowledge, therefore, is broadened by interaction with peers who share similar interests and values. Peers can provide close comparisons, that enable students to develop and adjust their self-efficacy (Fan, Lindt, Arroyo-Giner, & Wolters, 2009), for example, peer success through effort when observed, increases the observer's self belief about their own capabilities and increases the likelihood of them making similar effort (Fan, Lindt, Arroyo-Giner, & Wolters, 2009).

Several studies have affirmed that there are positive associations between peer acceptance, peer support and academic success. In contrast, low peer acceptance or peer rejection in adolescence has been identified as risk factors for poor school adjustment, including academic failure (Buhs & Ladd, 2001; Coie, Terry, Lenox, Lochman, & Hyman, 1995; Parker & Asher, 1987 cited in Fass, & Tubman, 2002). Wentzel (1993b) has revealed that peers can be a source of support in the context of joint connections, such as sharing intellectual information (e.g., notes and strategies) and modeling academically desirable behavior and learning skills. In academic achievement, peers can also



influence one another's achievement outcomes. Epstein (1983) found that low achieving students socializing with high-achieving friends established improved school performance.

Peer support has been found to be associated with positive effects in a few studies (Felner, Ginter, & Primavera, (1982), adjustment to school (Martin, Swartz-Kulstad, & Madson, 1999), and positive self-concept (Way & Chen, 2000). Furthermore, peer support is recognized in educational settings. Different forms of peer support, such as peer mentoring, peer tutoring, peer counseling, befriending, and peer-mediated conflict resolution (Charlton, 1998; Cowie & Hutson, 2005; Cowie & Wallace, 2000; Walker, Ashby, Hoskins, & Greene, 2009) have been conducted in schools.

Students with friends with negative academic behaviours tend to experience a drop off in their own motivational beliefs and academic behaviour (Ryan, 2000). Students with close friends who had greater positive behavioural characteristics however, tend to espouse positive classroom behaviours (Berndt, 1999; Nelson & DeBacker, 2008), fostering their intrinsic motivation (Ryan, 2000), and





demonstrated positive academic achievement (Berndt, 1999; Ryan, 2000 cited in Fan, Lindt, Arroyo-Giner, & Wolters, 2009). Less is known about adolescent academic self-efficacy and peer influence.

#### *4.3.1. Peer Support in the Hong Kong Context*

That peer support plays a major role in inspiring students' academic achievement has been well documented in the United States (Fuligni, 2001; Steinberg et al., 1995). The few studies on peer support conducted in Hong Kong generally focused on comparing the influences of parents and peers. Evidence has shown that parents play a more powerful role than peers in affecting Hong Kong adolescents' life satisfaction (Man, 1991). Students who were more deeply influenced by parents than by peers reported having greater life satisfaction; it is possible to imply this result in Hong Kong students' learning outcome as well.

The present study will examine the relationships between teacher, parental, and peer support and academic achievement in Chinese and English, and the inter-



relationships between these and self-efficacy, self-concept, and fear of failure.

The next section will consider the relationship of self-efficacy, self-concept and fear of failure to academic achievement in Chinese and English.

#### **4.4. The Relationship of Self-efficacy, Self-concept and Fear of Failure to Academic Achievement in Chinese and English**

Self-efficacy beliefs have received increasing attention in educational research, specifically in the area of academic motivation (Pintrich & Schunk, 1995). Bandura's (1986) Social Cognitive Theory is used as the framework in predicting the role of self-efficacy and how it applies in the areas of English and Chinese self-efficacy in the present study. Self-concept and fear of failure are two other variables for consideration in this study.



#### *4.4.1. Self-efficacy*

Self-efficacy has been showing to be correlated to academic achievement in previous studies (Bandura, 1986, 1997; Schunk & Hanson, 1985; Pintrich & DeGroot, 1990; Zimmerman, 2000). Bandura has indicated that students with perceived high self-efficacy are students who hold optimistic self-beliefs and those who can change behaviour by personal action. Other studies also reported that “students with high self-efficacy beliefs increase their academic interest and motivation (Bandura, 1986, 1997), efforts and engagements of learning (Schunk & Hanson, 1985; Pintrich & DeGroot, 1990; Zimmerman, 2000), and also increase in cognitive competencies and accomplished achievement” (p.34) (Pajares, 1996; Pintrich & DeGroot, 1990; Zimmerman, 2000 cited in Fan, Lindt, Arroyo-Giner, & Wolters, 2009). High self-efficacy has been demonstrated to affect one’s academic persistence, i.e., completing a task more promptly and working harder when they encounter difficulties (Bandura, 1997; Schunk 2001; Lent, Brown, & Larkin, 1984, 1986). There is evidence that self-efficacy predicts academic achievements (Bandura, 1986).



Self-efficacy beliefs are powerful predictors of motivational and academic practices. Zimmerman who investigated students' confidence levels, found that students possess the self-regulated learning strategies required to succeed in school (Zimmerman & Cleary, 2005), and that "self-efficacy for self-regulated learning" contributes both to students' motivational beliefs and to the academic success they experience (Zimmerman, 1989, 1994; Zimmerman & Bandura, 1994; Zimmerman & Martinez-Pons, 1990). This study investigates the relationship between self-efficacy in Chinese and self-efficacy in English and achievement outcomes in Chinese and English. Because self-efficacy is domain specific and related to specific outcomes it is anticipated that self-efficacy will be most strongly correlated with achievement in like domain (that is self-efficacy in Chinese will strongly predict Chinese achievement, and self-efficacy in English will strongly predict English achievement), but that the relationships with un-like domains will be relatively weaker. It is also proposed to examine the relative strength of self-concept in Chinese and English domains for students whose medium of instruction is Chinese, and for whom Chinese is their first language.



#### *4.4.2. Self-concept*

As indicated in an earlier chapter, positive academic self-concept is both a predictor of desirable academic outcomes as well as a desirable outcome in itself. Often self-concept is seen as a mediator between predictor and outcome variables, and sometimes as a predictor variable whose effects are mediated by other constructs. Berndt, Cheung, Lau, Hau and Lew (1993) found a persons' positive self-concept was associated with perceptions of greater personal control, better academic performance, higher masculine and androgynous sex-role orientation, lower levels of delinquency and better parent-child relations.

Shavelson et al., (1976) note that self-concept is important both as an outcome and as a mediating variable that helps to explain other outcomes. For example, Marsh (2007) demonstrated the direct significance and long-term effects of academic self-concept on achievement. Skinner et al., (1990, 2009) indicated that the relationship between academic self-concept and achievement may also be mediated by students engagement and attitudes toward school or academic subjects. In Marsh (1991) study when academic self-concept was accounted for, previously confirmed negative effects of school-average ability were reduced



and academic self-concept showed considerable total and direct effects on academic aspirations.

This study examines the direct effects of academic self-concept in Chinese and English on achievement in Chinese and English. It is anticipated that self-concepts in alignment with outcomes (e.g., Chinese self-concept with Chinese achievement) will be stronger predictors than self-concept with unlike domains (e.g., Chinese Self-concept with English achievement). However, owing to the more general nature of self-concept it is likely that there will be a crossover effect. Hence this study examines the effects of like domains (Chinese Self-concept with Chinese achievement) while controlling for unlike domain (English Self-concept) on each achievement outcome (English and Chinese).

#### *4.4.3. Fear of Failure*

The relationship between fear of failure and performance focuses on possible negative effect on performance (Cook & Halvari, 1999; Covington & Omelich, 1988; Pekrun et al., 2006). Elliot & Church (1997) posited that fear of failure



was only indirectly linked to performance. In contrast, Lang and Fries (2006) showed that fear of failure amongst secondary school students was positively correlated to the two negative affective states of worry and test anxiety (Gjesme, 1982). In addition, Pekrun et al., (2006) found that fear of failure predicted anxiety and hopelessness (Pekrun, Elliot, & Maier, 2009). Some studies indicated that fear of failure had a positive effect on performance for students high on achievement motivation due to their high level of arousal (Covington & Omelich, 1988; Elliot & Church, 1997).

This study examines the relationship between fear of failure and achievement in Chinese and English. Given the nature of Chinese culture (discussed briefly above and below) and the performance and exam driven education system characteristic of Hong Kong, it is anticipated that fear of failure will be a strong predictor of achievement. However, as discussed earlier, it is unclear whether fear of failure will be a positive or negative predictor, and whether any predictive effects will be significant when controlling for self-efficacy and self-concept, both of which are predicted to have positive effects on student achievement. In this context Eaton & Dembo (1997) examined achievement and



a variety of motivational beliefs in Asian American and non-Asian high school students. They found that fear of failure beliefs elicited in Asian-American students are a strong motivator to succeed whereas Anglo-American students were motivated by self-efficacy. Asian American students rated their self-efficacy beliefs lower than the non-Asian students, but had higher levels of performance in performing tasks. The results revealed that for Asian American students, fear of academic failure was the strongest predictor of achievement, followed by self-efficacy.

A potential line of inquiry drawn from this study is that fear of failure rather than efficacy beliefs elicit a stronger motivation to succeed amongst Asian Hong Kong students. In addition, peer, parental and teacher support are correlated to students' academic achievement respectively via students' psychological development in terms of self-efficacy, self-concept, and fear of failure, all these variables will be examined in the present study.





#### **4.5. Gender Differences in Students' Learning**

In both Western and Eastern cultures, there are many studies on gender differences in students' self-concept and academic achievement in language learning. Marsh (1989) reported statistically significant but small gender differences in most Self-Description Questionnaire scales, some favoring girls but more favoring boys. The total self-concept scores favored boys, although this gender difference explained only 1% of the variance in the study. Mac Cann (1995) found a continuous improvement in the performances of girls relative to boys that was reasonably consistent across all school subjects that might lead educators to propose special programs to improve boys' educational outcomes. Eccles (1987) reported comparatively lesser gender differences in student attitudes and beliefs, but boys tend to rate their abilities and their expectations of success higher than girls did, whereas girls rated their ability, expectations of success, and usefulness of English higher than did boys.

From a self-efficacy perspective of Western research, some researchers also found that girls reported greater self-efficacy during elementary school (Pajares, Miller & Johnson, 1999) and middle school (Pajares & Valiante, 1999). Girls



express more confidence in their capability to use strategies such as finishing homework assignments on time, concentrating in studying, memorizing information presented in class and textbooks, and participating in class discussion. Although girls outperformed boys in language arts, both girls and boys reported equal writing self-efficacy. However, girls considered themselves better writers than boys in one study (Pajares, 2002).

Phillips and Zimmerman (1990) stated that gender differences can occur as a function of home, culture and education. Parents often underestimate their daughters' academic competence and may hold lower expectations of them. Parents may hold that mathematics and science are male domains (Meece & Courtney, 1992) and girls may therefore be weak in these areas. Teachers may also convey to girls that mathematics may be difficult for them (Pajares, 2002).

From the cultural perspective, there are also some studies that have explored gender differences in equality of educational opportunity in Chinese culture. It is well known that boys are more valued than girls in Chinese culture; the preference for sons has existed in Chinese history for many centuries. In the last



decades, there have been many changes in cultural, social and political sectors of Hong Kong society. These include increased educational and job opportunities for women and changing family structures, and the awareness of the roles played by women (Ho, 2009). There is a trend towards more equal gender participation in education in Hong Kong since 70s. Girls were more educationally disadvantaged than boys in the past. In 2001 Population Census, 12% of Hong Kong girls had never received schooling, but boys were only 4.6% (Census and Statistics, Department, 2002). The school attendance rate for girls aged 17-18 increased from 63.9% in 1996 to 82.8% in 2006, and the ages 19-24 from 21.0% to 37.3% over the 10-year period (Census and Statistics Department, 2008). Although more girls have received educational opportunity in recent years, the academic success of different genders is worth investigating in the present study.



## **CHAPTER FIVE**

### **THE ROLE OF CHINESE CULTURE AND CONFUCIAN-HERITAGE EDUCATION**

Students' academic achievement and variables of self-efficacy, self-concept and fear of failure have been the focus of investigation in Western research. In contrast, not much research has been conducted in the East in terms of the pattern of self-development that reflects the variations in the context of culture. Chinese students may differ from Western students in how they construct their self-concepts. For instance, Chinese culture is low on individualism and high on collectivism (Bond, 1996; Hofsted, 1991; Markus & Kitayama, 1991; Triandis, 1989). Hence, this section provides a discussion on academic achievement/motivation in Chinese culture in the Hong Kong context which might affect students' self-development.

Lee (1996) stated that Confucian ethics place great emphasis on education, effort and will power, because education is important for building ones' character, and also for societal development. McInerney (2008) agreed with Lee's point of view



that Chinese society is characterized by social orientation and collectivism, and under the influence of Confucian philosophy, the Chinese place great emphasis on piety, hard work, and education. Characteristically the Hong Kong education system is competitive and outcome orientated and greater significance is placed upon academic achievement for Hong Kong students, as this is the only way for them to enter a good university. As such, parental relationships and student achievement for Hong Kong students is thought to be significant as in Chinese culture importance is placed on relationships between students and persons in authority (e.g., parents and teachers). In particular, teacher-student relationships are believed to influence teacher-student interactions and impact on student learning behaviour.

### **5.1. Definition of Culture**

Early conceptualizations of culture included “culture is to society what memory is to individuals” (Kluckhohn, 1954, cited in Triandis, 2001, p.908). More recent descriptions have included the idea of what in culture has worked in the experience of a society that was worth transmitting to future generations.



Language, time and place are significant in determining the difference cultures (Triandis, 1995). In addition Biggs and Moore (1993) believed that culture is “the sum total of ways of living built up by a group of human beings which is transmitted from one generation to another’ (p.24). It is not only a matter of overt behavior, it is also the social rules, beliefs, and attitudes and values that govern how people act and how they define themselves. Moreover, culture is regarded as “the collective programming of the mind which distinguishes the members of one human group from another” (Hofstede, 1980, p.25). Triandis (1989) proposed that culture affects the relative development of selves, meaning that collectivist cultures encourage the development of much cognition that refers to a group or collective, and that most of the time this cognition will be gained by individuals. People from collectivist cultures, such as Asia, tend to be collective self. The following sections outline specific characteristics of collective self rooted in Chinese culture.



### *5.1.1. Collective societies in Eastern Cultures*

“Collectivism may be initially defined as a social pattern consisting of closely linked individuals who see themselves as parts of one or more collectives (family, coworkers, tribe, nation); are primarily motivated by the norms of, and duties imposed by those collectives; are willing to give priority to the goals of these collectives over their own personal goals; and emphasize their connectedness to members of these collectives” (Triandis, 1995 cited in Hamamura, 2011). In Eastern cultures, collectivistic values have an impact on students’ learning. They make students work harder because academic achievement is seen as a filial duty affecting the entire family (Salili & Lai, 2003). The unconditional respect and obedience towards parents and to one’s superiors is a main characteristic of collective culture.

In the collective society that is typical of Eastern culture, Asian students’ behaviour may be better interpreted in terms of collective and interdependent societies in which individuals are socialized to behave and respond in ways that would enhance their relatedness to significant others in the community (Salili, 1995). The typical East Asian cultures such as China, Hong Kong, Singapore,



Taiwan, Japan and Korea, place strong emphasis on academic success and competition, and students are motivated to work hard to meet parental and social expectations.

### *5.1.2. The Role of “Face” in Eastern Cultures*

“Face” (mien-tzu) in Chinese character (面子) means it is significant to have status in front of others. It is selfish and shameful to cause others to ‘lose face’ (Bond, 1996). Face is increased when one moves up the social hierarchy (status). Furthermore, face can be protected if one is able to live up to the others’ expectations. If someone fails to meet others’ expectations, he/she loses face, and this has significant consequences for him/her. Hence, face is something that is difficult to gain but potentially easy to lose. Face places an important part in one’s self-concept. If someone loses face, and then it will reduce his/her self-efficacy or self-concept.

Kirkbride and Tang (1992) posited that maintaining face is significant in Eastern culture. This concept is divided into two aspects of “lien”(臉) which means the





confidence that society has about a person's moral character and the second one was "mien-tzu"(面子) that prestige arising from one's social status (Yau, 1994). "Lien" is granted to those who deserve it by society, but "mien-tzu" may be lost by misconduct or regained with appropriate conduct. "Lien" is related to Eastern students' classroom behavior.

To the extent that East Asians tend to be more concerned about this intrinsically vulnerable resource, self-regulation is oriented more toward avoiding the loss of face (Hamamura & Heine, 2008b; Heine, 2005). The most important things are to make one's family proud, save face and avoid shame or unhappy consequences. Students are often motivated to avoid failure because of the possibility of experiencing such embarrassing or shameful outcomes. Such fear of failure can be expected to accompany low self-efficacy (Caraway et al., 2003). Chan (1999) indicated that students might "losing face" for poor performance in the classroom and it is the concept or self-concept of face for the Chinese.



## 5.2. Academic Success in Chinese Students

Che and Ural (1998) denoted that education and educating “scholars” has long been an important focus and emphasis in Chinese history. The official selection and educating of gifted children, called “child prodigies,” or “Tong Zi Ke” (童子科) existed in the feudal dynasties from the West Han Dynasty on (206 B.C.). In the Tang Dynasty (618-907 B.C.), the government established a relatively strict and formal law for selecting gifted children, and the policy of administering imperial examinations (科舉) lasted to the end of the Qing Dynasty, though there have been differences in the details from dynasty to dynasty over the past two thousand years. Academic achievement is highly valued in many Confucian-based Asian societies and cultures, whereas education is perceived as an extremely important means of personal development and advancement. Stevenson and Lee (1996) stated “there is compelling evidence of superior academic achievement by Chinese students” (p.129) in the three areas of mathematics, reading and science, further, in Confucian-heritage cultures, motivation and effort are key factors to students who usually spend a great deal of time on important tasks (Ho, Peng & Chan, 2001).



At the present time, there is a general consensus that Chinese children learn and achieve well especially in math and science compare to their Western peers (Harmon et al., 1997; Kwok & Lytton, 1996; McKnight et al., 1987; Stevenson & Stigler, 1992). To explain Asian achievement, research has indicated that Chinese learning is associated with academic motivation. Yu and Yang (1994) indicated that Chinese achievement is attributed to “a desire to fulfill the expectations of the in group” (Kim, 1997). Kim also affirmed that in Confucian cultures children are motivated to please their teacher in learning (p.159).

### **5.3. Classroom Environment and Teachers’ Role in Confucian-heritage Culture**

Biggs believed that typical classroom environments in Hong Kong are characterized by large class sizes of more than 40 students, low teacher-student ratio, competitiveness amongst students, a harsh classroom climate, and low-level learning outcomes and good performance in in-school and public examinations (Biggs, 1996). In addition, Asian classrooms are usually teacher-centred with passive students (Mok, Chik, Ko, Kwan, Lo, Marton, Ng, Pang,



Runesson & Szeto, 2001). The teacher is more of an authoritarian purveyor of information than a facilitator of students' learning and knowledge construction (Stigler & Stevenson, 1991). The teacher-centred approach is considered to create a respectful working relationship between teachers and students (Biggs & Watkin, 1966; Ho, 2001).

The role of the teacher is unique in Confucian Education, as the teacher is the repository of knowledge to be passed onto his/her students. The older the teachers, the greater the repository of knowledge they have got according to traditional Chinese educational philosophy. The polite form of address for a teacher is "laoshi" (老師) literally meaning aged teacher. The duties of the teacher are manifested in the Confucian proverb that "it takes a teacher to transmit wisdom, impart knowledge and resolve doubts." (師者，所以傳道授業解惑也) The teacher's role is to transmit wisdom, and this requires that teachers serve as a moral example as well as guides for students' intellectual development (Lee, Yin & Zhang, 2000).



The function of education, according to Chinese, is to adamantly enforce among the students the learning of correct knowledge. Thus, Confucianism sets the stage for learning by inculcating into students' minds its representation of truth. Ho (1994) points to "the central influence of Confucianism on learning and education concerns and the representation of truth transmitted to, and subsequently experienced and internalized, by the student" (Ho, Peng & Chan, 2001, p.40).

#### **5.4. Student's Role in Confucian Educational Philosophy**

Some of the students are passive recipient under the Confucian Educational system implies that students are not active seekers or generators of knowledge. Students are encouraged to obtain good grades in examinations, study hard, do lots of homework, and practice repeatedly the materials prescribed in the syllabi. They must be respectful and obedient toward their teachers. Students keep silent in the classroom, except when teachers give them an opportunity to say something (Ho, Peng & Chan, 2001). In Confucian culture, academic success is necessary for getting good jobs, and for attaining higher socio-economic status.



Learning is regarded as a necessary hardship to be suffered, not as personal enrichment to be enjoyed.

### 5.5. Teacher-student Relationship in Confucian Educational Philosophy

In Confucianism, the ethic of filial piety governs the teacher-student relationship which is modeled after the father-son relationship (Ho, Peng & Chan, 2001). The phrase “shifu” (師傅) is translated into teacher-father according to a popular saying: “One day as a teacher amounts to a lifetime as father.” (一日為師終身為父。 ) In addition, the role of the teacher-student relationship is indicated by its imperative nature: pervasive, stringent, and intolerant of deviation. For instance, teachers do not allow their authority to be challenged, students are afraid of teachers and dare not ask “provocative” questions (Ho, Peng & Chan, 2001).

Role dominance is about the dominance of the teacher in the teacher-student relationship, which overrides personality and situational factors in teaching and learning. The model teacher teaches by setting a personal example in a manner that is principled, caring, but stern. The teacher is the embodiment of authority,



and according to another Chinese saying: “Rearing without education is the fault of the father; teaching without strictness is the fault of the teacher.” (養不教，父之過；教不嚴，師之愆。)

The role of the teacher in the Confucian tradition is both affective and instrumental, especially in the attainment of educational goals. The teacher’s affection and caring for the students has to be concealed in their hearts. They are giving praise for good efforts, but harsh in making demands (Ho, Peng & Chan, 2001).

## **5.6. Socio-cultural Factors Affecting Asian Students’ Academic**

### **Achievement**

The Confucian heritage, collectivistic cultures and the differential influence of family on children’s fear of failure and its relationship to family expectations have been emphasized in many studies (e.g., Biggs, 1992; Biggs & Watkins, 1996; Reglin & Adams, 1990; Salili, 1996). For instance, Reglin and Adams



(1990) have suggested that Asian American students are more influenced by their parents' desire for success than their non-Asian counterparts. They have concluded that Asian American students' desire to meet their parents' academic expectations creates the need to spend more time on homework and to minimize traditional high school activities.

In addition, Hong Kong is under the influence of the Confucian heritage and within collectivistic cultures, social relations between teacher and student, and between student and student, are closer and more complicated in Hong Kong than in the other Western countries. For example, the interaction between teacher and student is more frequent, and the teacher and student relationship is typically marked not only by warmth but also by a sense of responsibility and mutual respect. (Biggs & Watkins, 1996; Watkins & Biggs, 2001).

Biggs (1996) revealed that social harmony and human relationships are highly emphasized in Confucian heritage, so there is larger consistency between student expectations and teacher expectations in the East than in the West, and students' spontaneous collaboration is a pronounced feature of Chinese student behaviour





in Hong Kong and mainland China. After examining teacher-student interaction in Hong Kong schools, Salili (2001) argued that culture and context of learning have a profound impact on the way teachers interact with their students and in turn on their motivation to learn.

### **5.7. Present Investigation and the Research Questions**

Because of the important role of teachers, parents and peers in Hong Kong students' academic achievement, the present study sets out to investigate the variables of peer support, parent support and teacher support and their relationships to students' academic achievement. In the past studies, parental involvement in adolescents' schooling, supportive teaching style, and peer support has been finding to be positively linked to students' achievement. However, few studies have examined the combined effects of peer, parental, and teacher relationships on adolescents' academic achievement in Hong Kong. In the present study, it is significant to fill this research gap in how the socio-cultural influences predict academic achievement.



The previous examination of some of the major characteristics of Chinese Confucian society begs the question as to whether constructs such as self-efficacy and self-concept have a role to play in understanding the academic achievement of Chinese students in both learning their native language as well as a foreign language. It would appear from the socio-cultural description that socio-cultural factors (teachers, parents and peers) as well as fear of failure (the concept of saving face in a highly competitive exam and performance based education system) would be highly predictive of achievement outcomes. However, it is of great importance to measure whether constructs such as self-efficacy and self-concept have validity within the Hong Kong context, can predict achievement outcomes, and if they can predict outcomes, whether their effects are significant when controlling for socio-cultural factors and fear of failure.



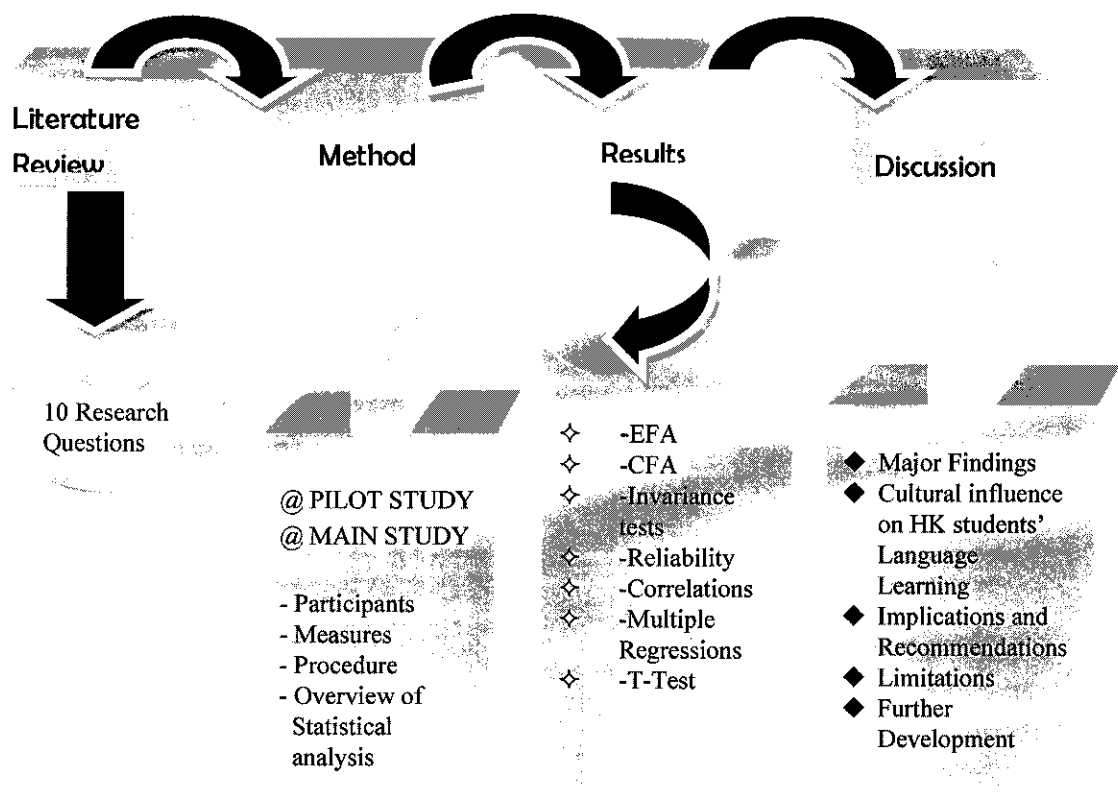


Figure 1 The Flow of the Research



Based on the conceptual framework, the overall research questions is:

*Do socio-cultural influences and students' personal beliefs predict Hong Kong secondary school students' language achievement?*

*5.7.1. Research Questions and sub-questions:*

- 1) Are the measures used in this research (Self-efficacy for learning and performance scale, Self-description questionnaire scales, The performance failure appraisal inventory and Facilitating Conditions Questionnaire) valid and reliable for the Hong Kong students participating in this study?
- 2) Are the measures (Self-efficacy for learning and performance scale, Self-description questionnaire scales, The performance failure appraisal inventory and Facilitating Conditions Questionnaire) invariant by gender?
- 3) Does self-efficacy predict Hong Kong students' academic achievement in language?



3a: *Does self-efficacy in language (Chinese and English) predict Hong Kong students' academic achievement in Chinese?*

3b: *Does self-efficacy in language (Chinese and English) predict Hong Kong students' academic achievement in English?*

4) Does self-concept predict Hong Kong students' academic achievement in language?

4a: *Does self-concept in language (Chinese and English) predict Hong Kong students' academic achievement in Chinese?*

4b: *Does self-concept in language (Chinese and English) predict Hong Kong students' academic achievement in English?*

5) Does fear of failure predict Hong Kong students' academic achievement in language?

5a: *Do fear of experiencing shame and embarrassment, and fear of upsetting important other predict Hong Kong students' academic achievement in Chinese?*



*5b: Do fear of experiencing shame and embarrassment and fear of upsetting important other predict Hong Kong students' academic achievement in English?*

6) Do facilitating conditions (Peer support, Parent support and Teacher support) predict Hong Kong students' academic achievement in language?

*6a: Do peer support (peer positive and peer negative), parent support (parent positive and parent negative) and teacher support predict Hong Kong students' academic achievement in Chinese?*

*6b: Do peer support (peer positive and peer negative), parent support (parent positive and parent negative) and teacher support predict Hong Kong students' academic achievement in English?*

7) Do Self-efficacy (in Chinese and English), Self-concept (in Chinese and English), Fear of failure (Fear of experiencing shame and embarrassment, and Fear of upsetting important other), and facilitating conditions (Peer support, Parent support and Teacher support) predict Hong Kong students' academic achievement in language?



*7a: Do Chinese and English self-efficacy, Chinese and English self-*

*concept, fear of failure (fear of experiencing shame and embarrassment, and fear of upsetting important other), peer support (peer positive and peer negative), parent support (parent positive and parent negative), and teacher support predict Hong Kong students' academic achievement in Chinese?*

*7b: Does Chinese and English self-efficacy, Chinese and English self-concept, fear of failure (fear of experiencing shame and embarrassment and fear of upsetting important other), peer support (peer positive and peer negative), parent support (parent positive and parent negative), and teacher support predict Hong Kong students' academic achievement in English?*

8) What are the most significant predictors of academic achievement in English and Chinese language?



- 9) Are there gender differences on Self-efficacy (in Chinese and English), Self-concept (in Chinese and English), fear of failure (Fear of experiencing shame and embarrassment and Fear of upsetting important other), facilitating conditions (Peer support, Parent support and Teacher support) and students' academic achievement (English and Chinese language)?
- 10) Are the relationships between Self-efficacy (in Chinese and English), Self-concept (in Chinese and English), Fear of failure (Fear of experiencing shame and embarrassment, and Fear of upsetting important other), facilitating conditions (Peer support, Parent support and Teacher support) and Hong Kong students' academic achievements (English and Chinese languages) similar for males and females?





## CHAPTER SIX

### METHODOLOGY

#### 6.1. Overview

The present study adopts a quantitative method. It was designed to examine how socio-cultural factors (i.e., parental support, peer support, and teacher support) and cognitive factors (i.e., self-efficacy, self-concept and fear of failure) predict Hong Kong secondary students' learning outcomes (i.e., academic achievement in English and Chinese). This Chapter describes the methodology of the pilot study and the main study.



## 6.2. Pilot Study

Teijlingen and Hundley (2001) indicated that conducting pilot test was beneficial to the main study because of the following reasons: 1) It helps to develop and test the adequacy of research instructions and assess the feasibility of the survey. In the present study, as two of the scales hadn't been used in Hong Kong, the purpose of the pilot test was to try out the questionnaire, and to see if the students could understand the questionnaires' items in terms of the translation and to assess the time length they needed to do the questionnaire, 2) It aims to assess whether the research protocol is realistic and workable, 3) It is essential to establish whether the sampling frame and technique are effective, 4) It is used to collect preliminary data. Some preliminary and simple exploration of the data was also made possible to inform the conduct of the full survey and 5) It also helps to develop the research questions and research plan.

### 6.2.1. Participants

A pilot study was undertaken with thirty-three students in which procedures and measures underwent pilot testing. The participants were chosen from one local school's tuition class and one public swimming class during the summer holiday in 2011. Participants consisted of 16 males, 12 females, and 5 unreported. They were grade 3 to grade 6 students from nine local secondary schools. They volunteered to participate in this pilot study, and were all Chinese



students. The age of the participants ranged from 12 to 17, with a mean age of 14.84 years ( $M = 14.84$ ,  $SD = 1.19$ ). Their socio-economic backgrounds were varied.

### 6.2.2. Measures

All of the measures used in this study were developed by making modifications to the items from reliable and valid scales used in motivation research and to measure academic performance. All items of the scales were chosen to explore the interrelationships of motivational beliefs in cognitive factors, socio-cultural factors and students' Chinese and English academic performance. All the items were presented in Chinese in the questionnaire. We adopted the Chinese version of some of the scales, including (Self-efficacy for Learning and Performance scale, Self-Description Questionnaire II and Facilitating Conditions Questionnaire). For the scales that were in English the items were translated from English into Chinese and back translation was done to make sure that the original and back-translated items were consistent in their meanings. There were in-depth discussions with the thesis supervisors to resolve any discrepancies in meanings between the two versions. All the scale points for each scale were standardized to a 5-point scale.



### 6.2.3. Cognitive Factors

#### 6.2.3.1. Chinese and English self-efficacy

*Self-efficacy for Learning and Performance scale* (in The Motivated Strategies for Learning Questionnaire (MSLQ))

In general self-efficacy refers to personal judgments of one's own ability to accomplish a task and confidence in one's skills to perform a specific task. There are two sections of the MSLQ, a motivation section and a learning strategies section. The self-efficacy for Learning and Performance scale is under the motivation section. The motivational scales are based on a social-cognitive model of motivation and the subscale of self-efficacy is about assessing perceptions of self-efficacy and control beliefs for learning.

The 16-item self-efficacy scale for Learning and Performance was taken from the MSLQ (Pintrich, Smith, Garcia & McKeachie, 1991), which investigated students' self-efficacy in Chinese and English. Students responded using 1 = not at all true of me to 5 = very true of me. The five-point scale of the Chinese version of the scale was taken from Li (2000). (in Chinese). The reliability coefficients for this measure (Cronbach's  $\alpha$ ) were 0.89 in Chinese efficacy and 0.92 in English self-efficacy. A sample item of this scale is: I believe I will receive an excellent grade in Chinese.



### 6.2.3.2. Chinese and English self-concept

#### *Self-Description Questionnaire II*

Two Self-Description Questionnaire scales (Marsh & Parker, 1985) were adapted for use in this study; the Chinese self-description scale, and the English self-description scale. Items were modified and rephrased to make them specific to English and Chinese (as the original scale measures English self-concept and Mathematics self-concept). The original scales were 6-point Likert-type response scales, from 1 = not at all true of me to 6 = very true of me, but it was reduced to a 5-point Likert-type scale in the present study. Participants completed a 5-point scale with 5 descriptors: 1 = strongly disagree, 2 = disagree, 3 = not sure, 4 = agree, and 5 = strongly agree. The reliability coefficients for this measure (Cronbach's  $\alpha$ ) were 0.88 for English self-concept, and 0.90 for Chinese self-concept. A sample item of this scale is: I am good at English.

### 6.2.3.3. Fear of Failure

#### *The Performance Failure Appraisal Inventory*

The Performance Failure Appraisal Inventory (Conroy, et al., 2001) was adapted for use in this study. It was designed to measure students' fear of failure. Two fear of failure factors were posited to underlie the Performance Failure



Appraisal Inventory. They were fear of experiencing shame and embarrassment (7 items) that measured whether students experienced personal diminishment and fear of upsetting important others (5 items) who feared failure because important others would lose interest in them (Conroy, Willow & Metzler, 2002). It is hypothesized that these two factors tend to predict the relationship between an Eastern learner's motivation and their academic achievement within the collective culture. Some items were given minor amendments to make them suitable for the local context.

The responses were made on a five-point scale ranging from 'do not believe at all' (-2) to 'believe 100% of the time' (+2) in the original scale. Therefore, responses were simplified and adjusted to a five-point scale ranging from 1 = do not believe at all to 5 = believe 100% of the time. The reliability coefficients for the sub-scales were 0.85 for "experiencing shame and embarrassment" and 0.90 for "fear of upsetting important others." A sample item of this scale is: When I am failing, I worry about what others think about me.



#### *6.2.4. Socio-cultural Factors:*

##### *6.2.4.1. Peer, Parent and Teacher Support*

##### *Facilitating Conditions Questionnaire*

There may be external forces, what I refer to as sociocultural influences, in the school environment that may facilitate or inhibit the translation of motivational ‘drives’ into actual behaviour. To examine the potential impacts of these external environmental factors, McInerney (1988) designed a Facilitating Conditions Questionnaire (FCQ) based on Maehr’s (1984) hypothesis of action possibilities (also see Maehr & Braskamp, 1986).

Several facilitating condition dimensions were posited to underlie the Facilitating Conditions Questionnaire items. These dimensions were Value, Peer Positive, Peer Negative, Parent Positive, Parent negative, and Teacher. Five sub-scales comprising 18 items were used in the present study: a) 4 items for peer positive, referring to perceived positive contributions of peers to perceptions of schooling; b) 3 items for peer negative, referring to perceived negative contributions of peers to perceptions of schooling; c) 4 items for parent positive, referring to perceived positive contributions of parents to schooling. d) 4 items for parent negative, referring to perceived negative contributions on the part of parents to schooling and e) 3 items for teacher support, referring to perceived positive support from teachers toward schooling and further



education (McInerney, Dowson & Yeung, 2005). Each dimension was measured on a five point 'strongly disagree' (1) to 'strongly agree' (5) scale. The 'value' dimension was not included in the study.

Some items were given minor amendments to make them suitable for the local context. The reliability coefficients for each sub-scale were: 0.48 for "peer positive," 0.95 for "peer negative," 0.77 for "parent positive," 0.97 for "parent negative" and 0.70 for teacher support.

#### *6.2.5. Measurement of Academic Achievement*

As outcome measures students were asked to report their latest English and Chinese exam scores and estimate their scores on their next exam.

Students were asked to report their latest English and Chinese exam scores on a 5-point Likert scale, ranging from 1= below 60/100, 2 = 61-70/100, 3 = 71-80/100, to 4 = 81-90/100, 5 = above 90-100.

This is a quasi-quantitative way to estimate student's English and Chinese score and I had practical difficulties getting the students' actual academic scores. It would also have extended the time collecting data if students had to complete achievement tests in addition to completing a long survey. And there is, to my knowledge, no common achievement test available in Hong Kong that would suit the purpose of my research.





### 6.3. Procedure

The participants completed the consent forms and questionnaire in the classroom, while some of the students completed the pilot test questionnaire (*Appendix I*) at home. They were assured that all information collected would be kept strictly confidential and would be used for research purposes only.

After the data collection, the preliminary analysis of reliability coefficients for each scale was conducted. All items were retained after the pilot test. Some of the verbal and written instructions were changed to enhance clarity.

### 6.4. Reliability Coefficients of Scales

Table 1 presents the reliability coefficients of all the scales in the pilot study. The reliability coefficients of Self-efficacy subscales, Self-concept subscales and Fear of failure subscales are high, with the range of alpha values between 0.85 to 0.96. Finally, the reliability coefficient of Facilitating Conditions subscales was generally moderate to high (ranging from 0.70 to 0.95.). The reliability for peer positive was low (0.48).

In summary, the internal consistency reliability coefficients are very consistent and strong across the four inventories, except for peer positive (PeerP) of the Facilitating Condition inventory. This may have been caused by two reverse



items in this sub-scale and the small sample size in this pilot study. However, this scale was retained and was given careful attention in the main cross-sectional study.



Table 1  
Descriptive statistics and Reliability coefficients (Cronbach's  $\alpha$ ) of Socio-cultural Influence and Cognitive Variables in the pilot study (N=33)

	No. of items	N	M	SD	Cronbach's $\alpha$
Self-efficacy (SE)					
Chinese (Chi)	8	32	3.27	0.73	0.89
English (Eng)	8	32	3.22	0.79	0.92
Academic Self-concept (ASC)					
English (Eng)	5	33	2.44	0.56	0.88
Chinese (Chi)	5	33	2.65	0.67	0.90
Fear of Failure (FF)					
Fear of experiencing shame and embarrassment	7	33	2.58	0.92	0.85
Fear of upsetting important others	5	33	2.83	1.03	0.90
Facilitating Conditions (FC)					
Peer Positive (PeerP)	4	33	3.69	0.55	0.48
Peer Negative (PeerN)	3	33	1.73	1.25	0.95
Parent Positive (ParentP)	4	33	3.56	0.56	0.77
Parent Negative (ParentN)	4	33	1.62	1.22	0.97
Teacher (Teacher)	3	33	3.55	0.73	0.70

6.5. Main Study

6.5.1. Participants

Participants consisted of 1,092 (620 males, 464 females and 8 unreported) secondary 2 to secondary 5 students from four local secondary schools in Hong Kong, including one on Hong Kong Island, two in Kowloon and one in the New Territories. Three schools adopted Chinese as the Medium of Instruction (CMI) and one school adopted English as the Medium of Instruction (EMI) (Table 2a). The participating schools for the present study were main-stream secondary

schools in Hong Kong. Three to five classes of each grade were chosen from the sample schools. Students who participated in the study had varied achievement in school. The samples of the geographical location and types of school were representative of Hong Kong region. However, they were not representative of the whole Hong Kong student population, because only four schools were involved, and thus the results may not be generalized beyond the sample in this study.

Research participants were volunteers and their consent was obtained before the data collection. They were all Chinese students. The age of the participants ranged from 11 to 20, with a mean age of 14.63 years ( $M = 16.43$ ). They were mainly from families of low to middle socio-economic backgrounds.



Table 2a  
School Information

No.	School	District of School	Medium of Instruction
1.	A	New Territories	CMI
2.	B	Kowloon	CMI
3.	C	Kowloon (Girls School)	EMI
4.	D	Hong Kong (Boys School)	CMI



*Table 2b*  
*Information of participants (N=1,092)*

No.	School	Total No. of Participants	Total No. of Participants in each grade	Age	Grade	Gender
1.	A	127 (11.6%)	G2=127	11=2 12=7 13=100 14=12 15=42 16=1 17=1	2	Male=82 Female=45 Total= 127
2.	B	275 (25.2%)	G3=132	13=4 14=61 15=91 16=65	3	M=69 F=63 Total=132
			G4=143	17=33 18=16 19=2	4	M=73 F=70 Total:143
3.	C	291 (26.6%)	G2=108	12=5 13=91	2	F =108
			G3=107	14=103 15=67	3	F=107
			G4=76	16=16 17=7	4	F=76 Total=291
4.	D	399 (36.5%)	G2=85	12=1 13=55	2	M= 85
			G3=120	14=103 15=97	3	M=120
			G4=92	16=90 17=40	4	M=92
			G5=102	18=11 20=1	5	M=102 Total=399
						<b>Total: 1,092</b>

**Remarks:**

M=Male, F=Female, G=grade



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### 6.5.2. Data Collection Procedure

Four secondary schools participated in this research study. Data collection for the study was conducted between December 2011 and April 2012. Invitation letters were sent to the school principals of Hong Kong secondary schools. (See Appendices II & III for the Chinese and English versions of the invitation letters). Parental consent was obtained before the students completed the questionnaire. (See Appendix IV & V for the Chinese and English versions of the parent consent forms). The participating students completed the consent forms and questionnaires during normal class sessions. In two schools (school C & school D) the questionnaires were administered under the supervision of a teacher and in the other two schools (school A & school B) the questionnaires were administered by the researcher with the research assistants in the schools. The participants who completed the questionnaire under the supervision of a teacher were given guidelines (Appendix VI) about the data collection procedure.

The procedure adopted by the administrators of the survey in gathering the data is described as follows: Before the administration of the questionnaires, the administrator gave the participants a brief introduction to the current study and then they were asked to sign a consent letter and were informed that their participation was completely on a voluntary basis, and that they could refuse to take part in the study or terminate their participation at any time. They were

also told that their responses would be kept confidential and used only for the purposes of the study. A sample of the consent forms in Chinese and English versions are attached as Appendix VII & VIII. After the administrator received the research consent forms, the students received a questionnaire and were told that the questionnaire mainly asked about their attitude toward studying. All of the questionnaires were in Chinese. The whole set of questionnaires, which comprises the Chinese and English versions, is presented in Appendix IX. Students who refused to participate were told to do their homework and not to disturb other classmates. At the end of the session, students were acknowledged for their participation. Each data collection session took approximately 15 to 30 minutes.

The collection of the questionnaires was not fully controlled by the researcher, because the school heads of the two sample schools did not allow the researcher to administer the data collection. The class teacher administered the questionnaires for the researcher instead according to the guidelines provided by the researcher.

### *6.5.3. Data Screening*

After the data collection, the participants' responses to the questionnaires were screened. The 1,110 participants generated 1,092 valid responses (Table 2c).

The participants' responses were not all useable for three reasons: some of the



participants did not give responses to all the questions, some questionnaires could hardly be identified as participants could not produce correct identification numbers and some participants did not seem to have taken completion of the questionnaire seriously.

In the preliminary data analysis, missing data were reviewed. The missing data for the responses were low (total of 50 missing responses on 6 items of 30 participants). If there is any missing data for a particular participant, this participant will be excluded altogether in this study. Furthermore, it was necessary to check the univariate data for normality of distribution, that is, the “skewness” and kurtosis of each item in the analysis. It was found that each item was normally distributed with skewness and kurtosis within the range of  $\pm 1.00$ .



Table 2c  
Information of questionnaires of participants (N=1,092)

No.	School	Valid Questionnaires	Invalid Questionnaires
1.	A	127	2
2.	B	275	11
3.	C	291	1
4.	D	399	4
Total no. of questionnaires: 1,092			



#### 6.5.4. Statistical Analysis

The statistical analysis is divided into two parts – preliminary analyses and advanced analysis. The preliminary analyses provide descriptive details and statistical analyses using SPSS 18.0 to investigate the reliability of instruments and correlation of the scales.

The advanced analysis of the proposed models used confirmatory factor analysis (CFA) to examine the construct validity of the measurements. Regression models were used to examine the relationships among the socio-cultural factors (i.e., parent, peer and teacher support) and cognitive factors (i.e., self-concept, self-efficacy, fear of failure) and academic achievement.

##### 6.5.4.1. Scale reliabilities

In statistics, reliability refers to the internal consistency of a set of items measured with Cronbach's Alpha coefficient. The coefficient quantifies how well the set of variables measure a single uni-dimensional construct and is a measure of reliability (Petkow, Harvey & Battersby, 2010). The reliability test was based on Cronbach's  $\alpha$  (Cronbach, 1951). It determines the internal consistency or average correlation of items in a survey instrument to gauge its reliability (Bussing, Ostermann & Matthiessen, 2005; Jelenc, 2007; Santos, 1999). It is commonly used to measure instrument reliability and it ranges between 0 and 1. The closer it is to one, the higher the reliability estimate of the

instrument. A commonly accepted rule of thumb is that an alpha of 0.6 - 0.7 indicates acceptable reliability, and 0.8 or higher indicates good reliability.

6.5.4.2. Correlations

Correlation is an index that represents whether two variables are related (or not), how strongly they are related, and in what way. Correlation analysis was used to examine the interrelationships among the four scales (SE, SC, FF and FCQ) which were used in the present study. In statistical terms the relationship between variables is correlation coefficient, which is between 0 and 1.0. Pearson's *r* is the most common measure of correlation. The higher the correlation coefficient, the stronger the relationship between variables. A correlation greater than 0.7 is generally described as a strong relationship, whereas a correlation less than 0.3 is generally described as a weak relationship among the variables. An overly high correlation between scales assumed to be independent may indicate an issue of potential multicollinearity. The rule of thumb for interpreting the Size of a correlation coefficient (Hinkle, Wiersma, & Jurs, 2003) is shown in the following table.

*The Rule of Thumb for Interpreting the Size of a Correlation Coefficient*

Size of Correlation	Interpretation
.90 to 1.00 (-.90 to -1.00)	Very high positive (negative) correlation
.70 to .90 (-.70 to -.90)	High positive (negative) correlation
.50 to .70 (-.50 to -.70)	Moderate positive (negative) correlation
.30 to .50 (-.30 to -.50)	Low positive (negative) correlation
.00 to .30 (.00 to -.30)	Little if any correlation

#### 6.5.4.3. *T-test*

The definition of T-test refers to “a statistical test involving confidence limits for the random variable  $t$  of a  $t$  distribution and used especially in testing hypotheses about means of normal distributions when the standard deviations are unknown” (Merriam-Webster Dictionary). Gender differences will be examined in the present study. The independent-samples  $t$  test is used to compare the means of two independent groups on a continuous dependent variable. Effect sizes ( $d$ ) are needed to report in the t-test, it describes the degree of gender differences between the groups. The effect size test indicates whether or not there is a significant difference between the groups while effect sizes provide an indication of the magnitude of the results (Yockey, 2008).

#### 6.5.4.3. *Multiple Regressions*

As the purpose of the study was to examine the direct effects of particular predictor variables on outcome variables while controlling for the effects of other variables multiple regression was a suitable approach. The general purpose of multiple regressions is to examine the relationship between several independent or predictor variables and a dependent or criterion variable. Multiple regressions was used to examine the relationship of the independent variables (self-efficacy, self-concept, fear of failure, peer support, parent support and teacher support) to the dependent variables, English language achievement and Chinese language achievement.



#### 6.5.4.4. Factor Analysis

Exploratory and confirmatory factor analyses were conducted to examine the construct validity of the scales. The aim of the factor analysis was to establish and confirm the dimensionality of the scales. They are used to establish the validity of the proposed models and any misfit that might need to be addressed before scales maybe used later analyses. Hence, exploratory and confirmatory factor analyses were adopted in the present study so as to investigate the construct validity of the four scales namely Self-efficacy for Learning and Performance (SE), Self-Description Questionnaire (SC), Fear of Failure (FF), and Facilitating Condition Questionnaire (FCQ),to accomplish the later analyses.

##### 6.5.4.4.1. Exploratory Factor Analysis

Exploratory Factor Analysis (EFA) is a method used to examine how underlying constructs influence the responses on a number of measured variables. It attempts to bring intercorrelated variables together under more general, underlying variables. Furthermore, the factor analysis is to reduce “the dimensionality of the original space and to give an interpretation to the new space, spanned by a reduced number of new dimensions which are supposed to underlie the old ones” (Rietveld & Van, 1993, p.325).



The underlying structure of each construct in the exploratory factor analysis was estimated based on the following six criteria (Stevens, 1996):

- 1) Kaiser-Meyer-Ollin (KMO): it measures sampling adequacy ( $KMO > 0.50$ ) and the Bartlett's test of the sphericity of the factors at a  $p < 0.001$  significance level;
- 2) Communalities:  $> 0.20$  for each item;
- 3) A minimum eigen-value  $> 1$
- 4) Extraction sums of squared loadings: Total percentage of variance explained by the factor loadings;
- 5) Cronbach alphas for all the inventories;
- 6) The identified factors were in accordance with related theories and literature.

#### 6.5.4.4.2. *Confirmatory Factor Analysis*

Vogt (1999) posited that Confirmatory Factor Analysis (CFA) is conducted to test hypotheses or confirm theories about the factors one expects to find. CFA assess how the observed indicators (items) reflect the structure of the underlying constructs. Confirmatory factor analysis (CFA) was used to evaluate factor structures with an acceptable fit to the data of the various scales. To establish the measurement models, a Confirmatory Factor Analysis (CFA) was conducted to determine the goodness-of-fit of the underlying structure of each construct using LISREL 8.80 (Jöreskog & Sörbom, 2006). It was based on a

maximum likelihood estimation on each of the scales. Missing values were handled by list-wise deletion.

Four scales, namely Self-efficacy for Learning and Performance (SE), the Self-Description Questionnaire III (SC), and the Performance Failure Appraisal Inventory (FF) and The Facilitating Condition Questionnaire (FCQ) were being tested in the present study. After demonstrating through both exploratory factor analysis and confirmatory factor analysis, the construct validity of the four scales was supported from the results.

#### *6.5.4.4.3. Model fit*

The main goal of model fitting is to determine how well the data fit the model. Model fit was determined by the extent to which the factor structure reconstructs the observed covariance matrix among the variables. To ensure an adequate assessment of the model fit, five indices were employed in the present study including:

- 1) Chi-square ( $\chi^2$ ): low values with high, non-significant *P*-values are good models.
- 2) The root mean square error of approximation (RMSEA) and its 90% confidence interval (Garson, 2008). Values of the RMSEA below 0.05 are considered to indicate a close fit, with values between 0.05 and 0.08 indicating





a fair fit, and with values between 0.08 and 0.1 indicating a mediocre fit (Browne and Cudeck, 1993; MacCallum, Browne and Sugawara, 1996).

3) Non-normed fit index (NNFI) (Bentler & Bonett, 1980): The NNFI has been shown to better reflect model fit at all sample sizes (Bentler, 1989, Anderson & Gerbing, 1984, Marsh, Balla, & McDonald, 1988). NNFI values over 0.9 are viewed as desirable, the value of NNFI may assume 0 and above 1.

4) The Comparative Fit Index (CFI) is used in small sample sizes (Bentler, 1990). Values of CFI greater than 0.90 indicates good model fit (Bentler, 1990);

#### *6.5.4.4.4. Model Modification*

If the model does not fulfill the above fit indices, the modification indices (MI) can be scrutinized to identify items with poor model fit. These items may then be removed to improve model fit. When the confirmatory factor analysis fails to fit the observed factor structure for a construct, freeing a parameter that has been fixed or fixing a parameter that has been freed can be explored. Then, a new hypothesis about a specific construct structure may be formed and tested. In the present study, as the initial goodness of fit for the Facilitating Condition Questionnaire (FCQ) and Self-Description Questionnaire (SC) could be improved an examination was made of the modification indices. There were 7 pairs of items were highly correlated and so correlated error terms for these pairs of items were included in the revised models.



The following section reports the results of the scales Self-Efficacy for Learning and Performance (SE), the Self-Description Questionnaire III (SC), the Performance Failure Appraisal Inventory (FF), and Facilitating Condition Questionnaire (FCQ) in EFA and CFA.



#### 6.5.4.5. Invariance Test

CFA invariance tests were used in the present study to examine whether there was measurement equivalence of the scales for males and females prior to testing for gender differences. Apart from testing the invariance of factor loadings, the series of models also tested the equality of factor variances/covariances and item uniquenesses. Bentler (1990) and Byrne (1998) have stated that the equality of parameters associated with measurement errors (uniquenesses) is typically the least important hypothesis to test and is unlikely to be met in most applications.

#### 6.6. Overview of Analysis – The Hypothesized Model

The hypothesized model examines how socio-cultural factors (i.e., peer, parent and teacher support) and cognitive factors (i.e., self-efficacy, self-concept and fear of failure) predict students' learning outcomes (i.e., academic achievement in English and Chinese). The overall research question is: Do socio-cultural influences and students' personal beliefs predict Hong Kong secondary school students' language achievement? Multiple regressions were used to examine the relationship of the independent variables (self-efficacy, self-concept, fear of



failure, peer support, parent support and teacher support) to the dependent variables (English language achievement and Chinese language achievement).



## **CHAPTER SEVEN**

### **RESULTS**

#### **7.1. Measurement Models**

The factorial structure of each construct was established by exploratory factor analysis and confirmatory factor analysis using SPSS16 and LISREL8.80 respectively.



*Research Question One: Are the measures used in this research (Self-efficacy for learning and performance scale, Self-description questionnaire scales, The performance failure appraisal inventory and Facilitating Conditions Questionnaire) valid and reliable for the Hong Kong students participating in this study?*

### **1) Self-Efficacy (SE) - Self-efficacy for Learning and Performance**

#### *Results of the Exploratory Factor Analysis (EFA)*

All the items in the inventory were normally distributed and the examination of KMO measures and Bartlett's test of sphericity ( $KMO = 0.93$ ;  $X^2 = 14237.56$ ,  $df = 120$ ,  $p < 0.001$ ) indicated that the sample size and correlation matrix were appropriate for the analysis. The EFA of the 16-item intercorrelation matrix for the Self-efficacy test for Learning and Performance (SE) used an unweighted least squares extraction method with principal components analysis (PCA) with varimax rotation in the analysis produced two factors with eigenvalues greater than 1. The first factor was self-efficacy in Chinese; comprising 8 items (items 1, 2, 3, 4, 5, 6, 7, and 8). The second factor was self-efficacy in English, comprising 8 items (items 9, 10, 11, 12, 13, 14, 15, and 16). As expected, the two factors, self-efficacy in Chinese and self-efficacy in English, were supported with items loading on their targeted factor, with all loadings from 0.49 to 0.91.



The communalities values ( $n^2$ ) for the items ranged from 0.27 to 0.83 indicating that the items were reliable indicators for the factor. The first factor accounted for 37.12 % of the variance with an eigenvalue of 6.87, while the second factor accounted for 32.33 % of the variance with an eigenvalue of 4.24. Internal consistency estimates of reliability (Cronbach's  $\alpha$ ) for the scales defined by the two item clusters identified in the factor analysis was 0.92 for self-efficacy in Chinese, and 0.95 for self-efficacy in English. These results suggested that the Self-efficacy for Learning and Performance (SE) test had acceptable scale reliabilities (see Table 3).

#### *Results of the Confirmatory Factor Analysis (CFA)*

The confirmatory factor analysis measurement model tested the ability of the two factors to explain the relationship among 16 items, while a priori factor structure is posited and the uniqueness terms associated with different items are uncorrelated. The confirmatory factor analysis results indicated an adequate fit to the data:  $\chi^2(103, N = 1,092) = 1,110.65, p < 0.001, RMSEA = 0.098, NNFI = 0.96$ , and  $CFI = 0.96$ . The two self-efficacy factor loadings were well defined from 0.44 to 0.90. The two self-efficacy factors (Chinese self-efficacy and English self-efficacy) were reasonably distinct, as indicated by the factor correlations ( $r = 0.23$ ). The completely standardized factor loadings (Jöreskog & Sörbom, 1993) from the confirmatory factor analysis are presented in Table 4.



### *Conclusion*

Based on the results of exploratory factor analysis and confirmatory factor analysis, all 16 items in two factors (Chinese self-efficacy and English self-efficacy) were retained in the present main study. The two factors, self-efficacy in Chinese and self-efficacy in English, were supported with items loading on their targeted factor. The confirmatory factor analysis results indicated a good fit to the data.





*Table 3*  
*Items, Factor Loadings for Self-efficacy for Learning and Performance (SE) in*  
*EFA*

Scale		Factor 1	Factor 2	Communalities
Chinese self-efficacy				
1.	I believe I will receive an excellent grade in Chinese.	0.84	0.05	0.70
2.	I'm certain I can understand the most difficult material presented in the readings for Chinese class	0.82	0.07	0.67
3.	I am confident I can learn the basic concepts taught in Chinese class.	0.83	0.07	0.70
4.	I'm confident I can understand the most complex material presented by the instructor in Chinese class.	0.82	0.13	0.70
5.	I'm confident that I can do an excellent job on the assignments and tests in Chinese class.	0.84	0.08	0.71
6.	I'm certain that I can master the skills being taught in Chinese class.	0.85	0.12	0.74
7.	Considering the difficulty of Chinese class, the teacher, and my skills, I think I will do well in this class.	0.79	0.15	0.65
8.	I expect to do well in Chinese class.	0.54	0.10	0.31
English self-efficacy				
9.	I believe that I will receive an excellent grade in English.	0.10	0.89	0.81
10.	I'm certain I can understand the most difficult material presented in the readings for English class.	0.05	0.90	0.82
11.	I am confident that I can learn the basic concepts taught in English class.	0.12	0.89	0.80
12.	I'm confident that I can understand the most complex material presented by the instructor in English class.	0.06	0.91	0.83
13.	I'm confident that I can do an excellent job on the assignments and tests in English class.	0.07	0.90	0.81
14.	I'm certain that I can master the skills being taught in English class.	0.11	0.91	0.83
15.	Considering the difficulty of English class, the teacher, and my skills, I think I will do well in this class.	0.13	0.88	0.78
16.	I expect to do well in English class.	0.17	0.49	0.27

Table 4  
Items, Factor Loadings for Self-efficacy for Learning and Performance (SE) in CFA

Scale	Factor 1	Factor 2
Chinese self-efficacy		
1. I believe I will receive an excellent grade in Chinese.	0.81	
2. I'm certain I can understand the most difficult material presented in the readings for Chinese class	0.80	
3. I am confident I can learn the basic concepts taught in Chinese class.	0.80	
4. I'm confident I can understand the most complex material presented by the instructor in Chinese class.	0.82	
5. I'm confident that I can do an excellent job on the assignments and tests in Chinese class.	0.82	
6. I'm certain that I can master the skills being taught in Chinese class.	0.83	
7. Considering the difficulty of Chinese class, the teacher, and my skills, I think I will do well in this class.	0.76	
8. I expect to do well in Chinese class.	0.47	
English self-efficacy		
9. I believe that I will receive an excellent grade in English.		0.88
10. I'm certain I can understand the most difficult material presented in the readings for English class.		0.89
11. I am confident that I can learn the basic concepts taught in English class.		0.87
12. I'm confident that I can understand the most complex material presented by the instructor in English class.		0.90
13. I'm confident that I can do an excellent job on the assignments and tests in English class.		0.88
14. I'm certain that I can master the skills being taught in English class.		0.90
15. Considering the difficulty of English class, the teacher, and my skills, I think I will do well in this class.		0.85
16. I expect to do well in English class.		0.44

## 2) Self Concept (SC) - Self Description Questionnaire

### *Results of the Exploratory Factor Analysis (EFA)*

All the items in the inventory were normally distributed and the examination of KMO measures and Bartlett's test of sphericity ( $KMO = 0.86$ ;  $X^2 = 8591.14$ ,  $df = 45$ ,  $p < 0.001$ ) indicated that the sample size and correlation matrix were appropriate for the analysis. The EFA of the 10-item intercorrelation matrix for the Self-Description Questionnaire (SC) used an unweighted least squares extraction method with principal components analysis (PCA) with varimax rotation. Two factors were retained with eigenvalues greater than 1. The first factor was self-concept in English comprised of 5 items (items 1, 2, 3, 4, and 5). The second factor was self-concept in Chinese comprised of 5 items (items 6, 7, 8, 9, and 10). The two factors, self-concept in English and self-concept in Chinese, loaded on their targeted factor, with all loadings from 0.70 to 0.92.

The communalities values ( $n^2$ ) for the items ranged from 0.50 to 0.86 indicating that the items were reliable indicators for the factor. The first factor accounted for 40.10 % of the variance with an eigenvalue of 4.14, while the second factor accounted for 36.10 % of the variance with an eigenvalue of 3.48. Internal consistency estimates of reliability (Cronbach's  $\alpha$ ) for the scales defined by the two item clusters identified in the factor analysis was 0.94 for self-concept in English, and 0.90 for self-concept in Chinese. These results suggested that the Self- Description Questionnaire (SC) had acceptable scale reliabilities (Table 5).



### *Results of Confirmatory Factor Analysis (CFA)*

The confirmatory factor analysis measurement model tested the ability of the two factors to explain relations among 10 items, where a priori factor structure is posited and uniqueness terms associated with different items are uncorrelated. The confirmatory factor analysis results indicated an adequate fit to the data:  $\chi^2(34, N = 1,092) = 529.79, p < 0.001, RMSEA = 0.125, NNFI = 0.94$ , and  $CFI = 0.95$ . As the initial goodness of fit could be improved an examination was made of the modification indices. It became apparent that there were pairs of items that highly correlated (2-3, and 7-8) and so correlated error terms for these pairs of items were included in the second model. The revised confirmatory factor analysis model showed substantially improved goodness of fit  $\chi^2(32, N = 1,092) = 268.28, p < 0.001, RMSEA = 0.081, NNFI = 0.97$ , and  $CFI = 0.98$ . The two self-concept factors (Chinese self-concept and English self-concept) were well defined in which the factors loadings were consistently high (0.63 to 0.92). The two self-concept factors (Chinese self-concept and English self-concept) were reasonably distinct, as indicated by the factor correlations ( $r = -0.10$ ). The completely standardized factor loadings (Jöreskog & Sörbom, 1993) from the confirmatory factor analysis are presented in Table 6.

### *Conclusion*

Based on the results of exploratory factor analysis and confirmatory factor analysis, all 10 items in two factors (Chinese self-concept and English self-



concept) were retained in the present main study. The two factors, self-concept in Chinese and self-concept in English, were supported with items loading on their targeted factor. The confirmatory factor analysis results indicated a good fit to the data.



Table 5  
Items, Factor Loadings for the Self- Description Questionnaire (SC) in EFA

Scale	Factor 1	Factor 2	Communalities
English Self-concept			
1. I am good at ENGLISH.	0.92	- 0.09	0.86
2. I get good marks in ENGLISH.	0.91	0.00	0.83
3. I have always done well in ENGLISH.	0.91	0.02	0.83
4. Work in ENGLISH is easy for me.	0.90	- 0.07	0.81
5. I learn things easily in ENGLISH.	0.83	- 0.03	0.68
Chinese Self-concept			
6. I am good at CHINESE.	- 0.05	0.89	0.79
7. I get good marks in CHINESE.	- 0.01	0.90	0.82
8. I have always done well in CHINESE.	0.04	0.88	0.77
9. Work in CHINESE is easy for me.	- 0.06	0.86	0.74
10. I learn things easily in CHINESE.	- 0.06	0.70	0.50



Table 6  
Items, Factor Loadings for the Self- Description Questionnaire (SC) in CFA

Scale	Factor 1	Factor 2
English Self-concept		
1. I am good at ENGLISH.	0.92	
2. I get good marks in ENGLISH.	0.86	
3. I have always done well in ENGLISH.	0.85	
4. Work in ENGLISH is easy for me.	0.88	
5. I learn things easily in ENGLISH.	0.78	
Chinese Self-concept		
6. I am good at CHINESE.		0.88
7. I get good marks in CHINESE.		0.85
8. I have always done well in CHINESE.		0.81
9. Work in CHINESE is easy for me.		0.82
10. I learn things easily in CHINESE.		0.63

Notes: Correlated error terms for items 2-3, and 7-8 were included.

## 2) Construct Validation of the Four Self Scales

The previous CFA analyses demonstrated evidence for the construct validity of both the Chinese self-efficacy and self-concept scales, and the English Self-efficacy and Self-concept scales. It is also essential that the four scales are distinct conceptually and to provide measurement evidence for this. To this purpose I conducted an all-in confirmatory factor analysis with all four scale items included to define the four constructs.

The confirmatory factor analysis measurement model tested the ability of the four factors to explain the relationship among 26 items, while a priori factor structure is posited and the uniqueness terms associated with different items are uncorrelated. The confirmatory factor analysis results indicated an adequate fit to the data:  $\chi^2(293, N = 1,092) = 2292.285$ ,  $p < 0.001$ , RMSEA = 0.079, NNFI = 0.97, and CFI = 0.97. The four self scales factor loadings were well defined from 0.44 to 0.91. The two self-efficacy factors (Chinese self-efficacy and English self-efficacy) and two self-concept factors (Chinese self-concept and English self-concept) were reasonably distinct, as indicated by the range of factor correlations ( $r = -0.06$  to  $r = 0.88$ ). The completely standardized factor loadings (Jöreskog & Sörbom, 1993) from the confirmatory factor analysis are presented in Table 7.





### *Conclusion*

Based on the results of confirmatory factor analysis, all 26 items in four factors (Chinese self-efficacy, English self-efficacy, Chinese self-concept and English self-concept) were retained in the present main study. The four factors, self-efficacy in Chinese and self-efficacy in English, self-concept in Chinese and self-concept in Chinese were supported with items loading on their targeted factor, indicating that the four factors were distinct factors.



Table 7

*Items, Factor Loadings for Self-efficacy for Learning and Performance (SE) and Self-Description Questionnaires (SE) in CFA*

Scale		Factor 1	Factor 2	Factor 3	Factor 4
Chinese self-efficacy					
1.	I believe I will receive an excellent grade in Chinese.	0.82			
2.	I'm certain I can understand the most difficult material presented in the readings for Chinese class	0.79			
3.	I am confident I can learn the basic concepts taught in Chinese class.	0.80			
4.	I'm confident I can understand the most complex material presented by the instructor in Chinese class.	0.81			
5.	I'm confident that I can do an excellent job on the assignments and tests in Chinese class.	0.82			
6.	I'm certain that I can master the skills being taught in Chinese class.	0.83			
7.	Considering the difficulty of Chinese class, the teacher, and my skills, I think I will do well in this class.	0.76			
8.	I expect to do well in Chinese class.	0.47			
English self-efficacy					
9.	I believe that I will receive an excellent grade in English.		0.89		
10.	I'm certain I can understand the most difficult material presented in the readings for English class.		0.89		
11.	I am confident that I can learn the basic concepts taught in English class.		0.87		
12.	I'm confident that I can understand the most complex material presented by the instructor in English class.		0.90		



## Table cont.

13.	I'm confident that I can do an excellent job on the assignments and tests in English class.	0.88
14.	I'm certain that I can master the skills being taught in English class.	0.90
15.	Considering the difficulty of English class, the teacher, and my skills, I think I will do well in this class.	0.85
16.	I expect to do well in English class.	0.44

## English self-concept

1.	I am good at ENGLISH.	0.91
2.	I get good marks in ENGLISH.	0.91
3.	I have always done well in ENGLISH.	0.89
4.	Work in ENGLISH is easy for me.	0.86
5.	I learn things easily in ENGLISH.	0.76

## Chinese self-concept

6.	I am good at CHINESE.	0.85
7.	I get good marks in CHINESE.	0.91
8.	I have always done well in CHINESE.	0.87
9.	Work in CHINESE is easy for me.	0.79
10.	I learn things easily in CHINESE.	0.60



#### 4) Fear of Failure (FF) - The Performance Failure Appraisal Inventory

##### Results of Exploratory Factor Analysis (EFA)

All the items in the inventory were normally distributed and the examination of KMO measures and Bartlett's test of sphericity ( $KMO = 0.90$ ;  $\chi^2 = 6779.32$ ,  $df = 66$ ,  $p < 0.001$ ) indicated that the sample size and correlation matrix were appropriate for the analysis. The EFA of the 12-item intercorrelation matrix for The Performance Failure Appraisal Inventory (FF) used an unweighted least squares extraction method with principal component analysis (PCA) with varimax rotation. Two factors were retained with eigenvalues greater than 1. The first factor was Fear of Experiencing Shame and Embarrassment comprising 7 items (items 1, 2, 3, 4, 5, 6, and 7). The second factor was Fear of Upsetting Important Others comprising 5 items (items 8, 9, 10, 11, and 12). The items of the two factors, Fear of Experiencing Shame and Embarrassment and Fear of Upsetting Important Others loaded on their targeted factors, with all loadings ranging from 0.61 to 0.91.

The communalities values ( $n^2$ ) for the items ranged from 0.39 to 0.86 indicating that the items were reliable indicators for the factor. The first factor accounted for 32.00 % of the variance with an eigenvalue of 5.54, and the second factor accounted for 30.21 % of the variance with an eigenvalue of 1.92. Internal consistency estimates of reliability (Cronbach's  $\alpha$ ) for the scales defined by the two item clusters identified in the factor analysis was 0.85 for the Fear of



Experiencing Shame and Embarrassment and 0.92 for the Fear of Upsetting an Important Other. These results suggested that The Performance Failure Appraisal Inventory (FF) had acceptable scale reliabilities (See Table 8).

### *Results of Confirmatory Factor Analysis (CFA)*

The confirmatory factor analysis measurement model tested the ability of the two factors to explain relations among 12 items, where a priori factor structure is posited and uniqueness terms associated with different items are uncorrelated. The confirmatory factor analysis results indicated an adequate fit to the data:  $\chi^2(53, N = 1,092) = 513.87, p < 0.001, RMSEA = 0.095, NNFI = 0.96$ , and  $CFI = 0.96$ . The two fear of failure factors (Fear of Experiencing Shame and Embarrassment and Fear of Upsetting an Important Other) were well defined in which the factor loadings were consistently moderate to high (0.52 to 0.95). The two factors (Fear of Experiencing Shame and Embarrassment and Fear of Upsetting an Important Other) were reasonably distinct, as indicated by the factor correlations ( $r=0.5$ ). The completely standardized factor loadings (Jöreskog & Sörbom, 1993) from the confirmatory factor analysis are presented in Table 9.

### *Conclusion*

Based on the results of exploratory factor analysis and confirmatory factor analysis, all 12 items were retained in the present main study. The two fear of



failure factors, Fear of Experiencing Shame and Embarrassment and Fear of Upsetting Important Others loaded on their target factor. The confirmatory factor analysis results indicated a good fit to the data.



Table 8  
Items, Factor Loadings for fear of failure in the EFA

Scale	Factor 1	Factor 2	Communalities
Fear of Experiencing shame and embarrassment			
1. When I am not succeeding, I am less valuable than when I succeed.	<b>0.67</b>	0.12	0.46
2. When I am not succeeding, I get down on myself easily.	<b>0.70</b>	0.18	0.53
3. When I am failing, it is embarrassing if others are there to see it.	<b>0.75</b>	0.17	0.59
4. When I am failing, I believe that everybody knows I am failing.	<b>0.61</b>	0.11	0.39
5. When I am failing, I believe that my doubters feel that they were right about me.	<b>0.71</b>	0.15	0.52
6. When I am failing, I worry about what others think about me.	<b>0.77</b>	0.27	0.67
7. When I am failing, I worry that others may think I am not trying.	<b>0.65</b>	0.36	0.56
Fear of Upsetting important others			
8. When I am failing, it upsets important others.	0.24	<b>0.81</b>	0.72
9. When I am failing, I expect to be criticized by important others.	0.20	<b>0.83</b>	0.72
10. When I am failing, I lose the trust of people who are important to me.	0.29	<b>0.74</b>	0.63
11. When I am failing, important others are not happy.	0.15	<b>0.91</b>	0.86
12. When I am failing, important others are disappointed.	0.18	<b>0.90</b>	0.84



Table 9  
Items, Factor Loadings for fear of failure in the CFA

Scale	Factor 1	Factor 2
Fear of Experiencing shame and embarrassment (Shame)		
1. When I am not succeeding, I am less valuable than when I succeed.	0.57	
2. When I am not succeeding, I get down on myself easily.	0.64	
3. When I am failing, it is embarrassing if others are there to see it.	0.72	
4. When I am failing, I believe that everybody knows I am failing.	0.52	
5. When I am failing, I believe that my doubters feel that they were right about me.	0.63	
6. When I am failing, I worry about what others think about me.	0.83	
7. When I am failing, I worry that others may think I am not trying.	0.71	
Fear of Upsetting important others (Upset)		
8. When I am failing, it upsets important others.		0.78
9. When I am failing, I expect to be criticized by important others.		0.77
10. When I am failing, I lose the trust of people who are important to me.		0.67
11. When I am failing, important others are not happy.		0.95
12. When I am failing, important others are disappointed.		0.94





## 5. Facilitating Condition Questionnaire (FCQ)

### *Results of Exploratory Factor Analysis (EFA)*

All the items in the inventory were normally distributed and the examination of KMO measures and Bartlett's test of sphericity ( $KMO = 0.80$ ;  $\chi^2 = 12390.07$ ,  $df = 153$ ,  $p < 0.001$ ) indicated that the sample size and correlation matrix were appropriate for the analysis. The EFA of the 18-item intercorrelation matrix for the Facilitating Condition Questionnaire (FCQ) used an unweighted least squares extraction method with principal components analysis (PCA) with varimax rotation. After rotation results suggested that five factors be retained with eigenvalues greater than 1 (see Table 10).

### *Results of the Confirmatory Factor Analysis (CFA)*

The confirmatory factor analysis measurement model tested the ability of the five factors to explain the relationship among 18 items, while an "a priori" factor structure was posited and uniqueness terms associated with different items were uncorrelated. The fit indexes indicated a poor fit to the data:  $\chi^2 (125, N = 1,092) = 2401.72$ ,  $p < 0.001$ ,  $RMSEA = 0.129$ ,  $NNFI = 0.86$ , and  $CFI = 0.88$ . As the initial goodness of fit was poor an examination was made of the modification indices. It became apparent that there were pairs of items that were highly correlated (1-2, 8-9, 8-10, 12-13 and 12-14) and so correlated error terms



for these pairs of items were included in the second model. The revised confirmatory factor analysis model showed substantially improved goodness of fit  $\chi^2(120, N = 1,092) = 725.91, p < 0.001, RMSEA = 0.068, NNFI = 0.96$ , and  $CFI = 0.97$ . The five Facilitating Condition factors are well defined in the factor structures from 0.27 to 0.96. The five Facilitating Condition factors are reasonably distinct, as indicated by the factor correlations, which vary from  $r = -0.67$  to  $r = 0.65$ . The completely standardized factor loadings (Jöreskog & Sörbom, 1993) from the confirmatory factor analysis are presented in Table 11.

### *Conclusion*

The five factors (Peer positive, Peer negative, Parent positive, Parent negative, and Teacher support) typically loaded on their targeted factors, however, a few of the items have cross-loadings. In addition, the overall results of confirmatory factor analysis were acceptable, and it showed good factor loading in the previous study (McInerney, Dowson & Yeung, 2005). Based on the results of exploratory factor analysis and confirmatory factor analysis, all of the 18 items were retained in the main study.



Table 10

*Items, Factor Loadings for the Facilitating Condition Questionnaire in EFA*

Scale		Factor 1	Factor 2	Factor 3	Factor 4	Factor 5	Communalities
<b>Peer Positive</b>							
1.	Most of my friends want to do well at school.	<b>0.82</b>	-0.15	0.44	-0.01	0.10	0.71
2.	Most of my friends want to go on to college.	<b>0.79</b>	-0.20	0.09	-0.03	0.10	0.69
3.#	Most of my friends think education is a waste of time.	<b>0.13</b>	-0.69	-0.03	-0.05	0.04	0.50
4.#	Most of my friends want to leave school as soon as possible.	<b>0.07</b>	0.04	0.04	-0.14	0.08	0.57
<b>Peer Negative</b>							
5.	My friends say I should leave school as soon as possible.	-0.08	<b>0.71</b>	-0.08	0.44	-0.03	0.72
6.	My friends tell me to leave school and go on welfare.	-0.16	<b>0.59</b>	-0.05	0.51	-0.16	0.64
7.	My friends tell me to leave school and get a job.	-0.08	<b>0.65</b>	-0.09	0.50	-0.83	0.69
<b>Parent Positive</b>							
8.	My father thinks that I am bright enough to go on to college or university.	0.09	-0.03	<b>0.89</b>	-0.03	0.09	0.82
9.	If I decided to go on to college or university, my father would encourage me.	0.47	0.04	<b>0.49</b>	-0.39	0.47	0.65
10.	My mother thinks that I am bright enough to go on to college or university.	0.50	-0.07	<b>0.89</b>	-0.03	0.50	0.83
11.	If I decided to go on to college or university, my mother would encourage me.	0.47	-0.01	<b>0.48</b>	-0.38	0.47	0.65
<b>Parent Negative</b>							
12.	My father encourages me to leave school as soon as possible.	-0.05	0.23	-0.04	<b>0.88</b>	-0.06	0.83
13.	My father thinks I should leave school as soon as possible to work.	-0.08	0.21	-0.06	<b>0.89</b>	-0.07	0.85
14.	My mother encourages me to leave school as soon as possible.	-0.08	0.22	0.05	<b>0.90</b>	-0.03	0.86
15.	My mother thinks I should leave school as soon as possible to work.	-0.04	0.20	-0.07	<b>0.89</b>	-0.06	0.84
<b>Teacher Support</b>							
16.	I get encouragement from some of my teachers to do well at school.	0.16	-0.01	0.07	-0.11	<b>0.82</b>	0.72
17.	If I decided to go on to college or university, teachers at this school would encourage me.	0.26	-0.09	0.10	-0.17	<b>0.80</b>	0.75
18.	Some of my teachers tell me I am bright enough to go on to college or university.	-0.11	-0.12	0.35	0.11	<b>0.71</b>	0.67

Notes: *Items with # refer to reverse-scored items.*

Table 11

*Items, Factor Loadings for the Facilitating Condition Questionnaire in CFA*

Scale	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
<b>Peer Positive</b>					
1. Most of my friends want to do well at school.	0.27				
2. Most of my friends want to go on to college.	0.32				
3.# Most of my friends think education is a waste of time.	0.61				
4.# Most of my friends want to leave school as soon as possible.	0.72				
<b>Peer Negative</b>					
5. My friends say I should leave school as soon as possible.		0.83			
6. My friends tell me to leave school and go on welfare.		0.84			
7. My friends tell me to leave school and get a job.		0.89			
<b>Parent Positive</b>					
8. My father thinks that I am bright enough to go on to college or university.			0.38		
9. If I decided to go on to college or university, my father would encourage me.			0.82		
10. My mother thinks that I am bright enough to go on to college or university.			0.47		
11. If I decided to go on to college or university, my mother would encourage me.			0.95		
<b>Parent Negative</b>					
12. My father encourages me to leave school as soon as possible.				0.80	
13. My father thinks I should leave school as soon as possible to work.				0.85	
14. My mother encourages me to leave school as soon as possible.				0.95	
15. My mother thinks I should leave school as soon as possible to work.				0.96	
<b>Teacher Support</b>					
16. I get encouragement from some of my teachers to do well at school.					0.68
17. If I decided to go on to college or university, teachers at this school would encourage me.					0.88
18. Some of my teachers tell me I am bright enough to go on to college or university.					0.52

Notes: 1) Items with # refer to reverse-scored items.

2) Correlated error terms for items 1-2, 8-9, 8-10, 12-13 and 12-14 were included.



*Table 12*  
*Summary of the CFA models and goodness of fit statistics for each instrument*

	$\chi^2$	$df$	$\chi^2 / df$	RMSEA	NNFI	CFI
SE	1,110.65	103	10.78	0.098	0.96	0.96
SC	268.28	32	8.38	0.081	0.97	0.98
FF	513.87	53	9.70	0.095	0.96	0.96
FCQ	725.91	120	6.05	0.068	0.96	0.97

*Note.*

- 1) *FCQ = Facilitating Condition Questionnaire; SE = Self-Efficacy; SC = Self Concept; and FF = Fear of Failure.*
- 2) *RMSEA=root mean square error of approximation; NNFI=non-normed fit index; CFI=normed comparative fit index.*

### **Summary**

In summary, based on the results of exploratory factor analyses and confirmatory factor analyses, all 56 items in 4 scales were retained in the present main study. All the scales were found to have adequate construct validity (Table 12). Both exploratory factor analysis and confirmatory factor analysis provide evidence for the construct validity of the measures used in this study for Hong Kong students.



## 7.2. Invariance Tests of the Scales for the Gender Differences

*Research Question 2: Are the measures (Self-efficacy for learning and performance scale, Self-description questionnaire scales, The performance failure appraisal inventory and facilitating conditions Questionnaire) invariant by gender?*

Although evidence has already been provided for the measurement validity and reliability of the scales used in this study (see p. 134-161), in order to make comparisons by gender it is also necessary to establish that the various scales are invariant across males and females. The following sections present a series of invariance tests establishing the measurement invariance of the scales for males and females in this study.

### *1) Self-efficacy for Learning and Performance Scale (in The Motivated Strategies for Learning Questionnaire (MSLQ))*

In order to test whether the Self-efficacy for Learning and Performance scale had measurement equivalence for males and females, a confirmatory factor analysis invariance test was conducted. The results of the series of invariance tests are summarized in Table 13. Three criteria for assessing goodness of fit were used, namely the Root Mean Square Error of Approximation (RMSEA; Browne & Cudeck, 1993), the Non-normed Fit Index (NNFI; Bentler & Bonett, 1980), and the Comparative Fit Index (CFI; Bentler, 1990). In general, for an



acceptable model fit, the values of NNFI and CFI should be equal to or greater than 0.90 and 0.95 for an excellent fit to the data. For RMSEA, according to Browne and Cudeck (1993), a value of 0.05 indicates a close fit, values near .08 indicate a fair fit, and values above 0.10 indicate a poor fit. Hu and Bentler (1999), indicated that  $CFI > 0.96$ ,  $RMSEA < 0.1$  as cutoffs for indicating acceptable model fit.

First, a baseline model (Model MG 1) was established without any constraints imposed. That is the factor loadings, factor variance /covariances, and unique variances were allowed to be freely estimated across the two groups. The baseline model provided an adequate fair fit ( $NNFI = 0.95$ ,  $CFI = 0.96$ ,  $RMSEA = 0.100$ ).

The first test of invariance (Model MG2), which specified that all factor loadings were equal across the two groups, produced acceptable fit statistics. Importantly, the CFI (0.96) supported the invariance of factor loadings while the NNFI increased 0.01 compared to the baseline model. These results are further substantiated by the acceptable fit indices across the NNFI (0.96) RMSEA (0.097). Cheung and Rensvold (2002) have suggested that for incremental fit indices (e.g., NNFI and CFI), increases or decreases in fit greater than 0.01 may indicate a difference between models testing factorial invariance across groups. As the CFI did not change and the NNFI changed by 0.01 we can say that there is invariance on factor loadings.



For Model MG3, the NNFI (0.96) and CFI (0.96) and RMSEA (0.097) remained the same as Model MG 2 providing support for the invariance of factor loadings and factor variances/ covariances across the two groups.

In Model MG4, all parameters were specified to be equivalent across two groups. Compared with the baseline model (Model MG 1), RMSEA is improved; NNFI (0.96) and CFI (0.96) remained the same as MG3 and MG2. In conclusion, the overall model supported the invariance of the factor loadings, factor variances/covariances and uniquenesses across males and females. Overall, the NNFI and CFI provide evidence of good fit while the RMSEA provides evidence of marginal fit (as indicated above) indicating acceptable model fit according to Cheung and Rensvold's (2002) criteria. According to Cheung and Rensvold (2002), and in consideration of MG 4, numerous authors in cross cultural psychology have argued that assumptions of the need for invariance across the uniquenesses are too restrictive, and should be ignored (Byrne, 1994; Parker, Dowson, & McInerney, 2007).





Table 13  
Summary of SE models and goodness of fit statistics across the two groups  
(Invariance test)

SE	$\chi^2$	df	$\Delta \chi^2$	df	$\Delta \chi^2 / \Delta df$	RMSEA	NNFI	CFI	Model description
MG 1	1314.65	206	-	-	-	0.100	0.95	0.96	INV=none; Free=FL, FV/FCV, Uniq
MG 2	1344.50	220	29.85	14	2.1	0.097	0.96	0.96	INV=FL; Free=FV/FCV, Uniq
MG 3	1362.03	223	17.53	3	5.84 *	0.097	0.96	0.96	INV=FL, FV/FCV; Free=Uniq
MG 4	1463.38	239	101.35	16	6.30 *	0.097	0.96	0.96	INV=ALL

Note: RMSEA=root mean square error of approximation; NNFI=non-normed fit index;  
CFI=normed comparative fit index.

## 2) *Self-Description Questionnaire*

In order to test whether the Self-concept for Self-Description Questionnaire had measurement equivalence for males and females, confirmatory factor analysis invariance tests were conducted. The results of the series of invariance tests are summarized in Table 14. First, a baseline model (Model MG 1) was established without any constraints imposed. That is the factor loadings, factor variance /covariances, and unique variances were allowed to be freely estimated across the two groups. The baseline model provided an adequate fit (NNFI= 0.97, CFI= 0.98, RMSEA=0.084).

The first test of invariance (Model MG2), which specified that all factor loadings were equal across the two groups, produced acceptable fit statistics. Importantly, the CFI (0.98) NNFI (0.97) supported the invariance of factor loadings across the two groups, while the RMSEA (0.080) provided marginal support.

For Model MG3, the NNFI (0.97) and CFI (0.98) and RMSEA (0.079) remained the same as Model MG 2. Thus providing support for the invariance of factor loadings and factor variances/ covariances across the two groups.

In Model MG4, all parameters were specified to be equivalent across two groups. Compared with (Model MG 3), CFI (0.97) dropped by 0.01 while the NNFI (0.97) and RMSEA (0.079) remained the same as Model MG3. In conclusion, there was overall support for the invariance of the factor loadings,



factor variances/covariances and uniquenesses with acceptable fit indices across groups according to Cheung and Rensvold's (2002) criteria. According to Cheung and Rensvold (2002), and in consideration of model 4, numerous authors in cross cultural psychology have argued that assumptions of the need for invariance across the uniquenesses are too restrictive, and should be ignored (Byrne, 1994; Parker, Dowson, & McInerney, 2007).



Table 14  
Summary of SC models and goodness of fit statistics across the two groups  
(Invariance test)

SC	$\chi^2$	df	$\Delta \chi^2$	df	$\Delta \chi^2 / \Delta df$	RMSEA	NNFI	CFI	Model description
MG 1	308.10	64	-	-	-	0.084	0.97	0.98	INV=none; Free=FL, FV/FCV, Uniq
MG 2	319.60	72	11.5	8	1.4	0.080	0.97	0.98	INV=FL; Free=FV/FCV, Uniq
MG 3	330.95	75	11.43	3	3.8	0.079	0.97	0.98	INV=FL, FV/FCV; Free=Uniq
MG 4	383.86	87	52.91	12	4.4 *	0.079	0.97	0.97	INV=ALL

Notes: 1) Correlated error terms for items 2-3, and 7-8 were included due to CFA Model Modification. 2 pairs of items were highly correlated and correlated error terms for these pairs of items were included in the revised models.  
2) RMSEA=root mean square error of approximation; NNFI=non-normed fit index; CFI=normed comparative fix index.

### 3) *The Performance Failure Appraisal Inventory*

In order to test whether the fear of failure for The Performance Failure Appraisal Inventory had measurement equivalence for males and females, confirmatory factor analysis invariance tests were conducted. The results of the series of invariance tests are summarized in Table 15. First, a baseline model (Model MG 1) was established without any constraints imposed. That is the factor loadings, factor variance/covariances, and unique variances were allowed to be freely estimated across the two groups. The baseline model provided an adequate fit (NNFI= 0.95, CFI= 0.96, RMSEA=0.098).

The first test of invariance (Model MG2), which specified that all factor loadings were equal across the two groups, produced acceptable fit statistics. Importantly, the CFI (0.96) NNFI (0.95) and RMSEA (0.097) provide support for the invariance of factor loadings across the two groups.

For Model MG3, the NNFI (0.95) and CFI (0.96) and RMSEA (0.095) remained the same as Model MG 2 and Model MG 1 providing support for the invariance of factor loadings and factor variances/ covariances across the two groups.

In Model MG4, all parameters were specified to be equivalent across two groups. Compared with (Model MG 3) CFI (0.95) dropping by 0.01 while the NNFI (0.95) was remaining the same as (Model MG 3) and RMSEA (0.096)



increasing by 0.01. In conclusion, the overall model provided support for the invariance of the factor loading, factor variances/covariances and uniquenesses across the two groups. Overall, the NNFI and CFI provide evidence of good fit while the RMSEA provides evidence of marginal fit (as indicated above).



Table 15  
Summary of FF models and goodness of fit statistics across the two groups  
(Invariance test)

FF	$\chi^2$	df	$\Delta \chi^2$	df	$\Delta \chi^2 / \Delta df$	RMSEA	NNFI	CFI	Model description
MG 1	654.61	106	-	-	-	0.098	0.95	0.96	INV=none; Free=FL, FV/FCV, Uniq
MG 2	701.81	116	47.2	10	4.72 *	0.097	0.95	0.96	INV=FL; Free=FV/FCV, Uniq
MG 3	703.25	119	1.44	3	0.48	0.095	0.95	0.96	INV=FL, FV/FCV; Free=Uniq
MG 4	781.24	131	77.99	12	6.40 *	0.096	0.95	0.95	INV=ALL

Note: RMSEA=root mean square error of approximation; NNFI=non-normed fit index;  
CFI=normed comparative fit index.

#### 4) *Facilitating Conditions Questionnaire*

In order to test whether the Facilitating Conditions Questionnaire had measurement equivalence for males and females, confirmatory factor analysis invariance tests were conducted. The results of the series of invariance tests are summarized in Table 16. First, a baseline model (Model MG 1) was established without any constraints imposed. That is the factor loadings, factor variance /covariances, and unique variances were allowed to be freely estimated across the two groups. The baseline model provided a good fit (NNFI= 0.96, CFI= 0.97, RMSEA= 0.069).

The first test of invariance (Model MG2), which specified that all factor loadings were equal across the two groups, produced acceptable fit statistics. Importantly, the CFI (0.97) NNFI (0.96) and RMSEA (0.068) supported the invariance of factor loadings across males and females.

For Model MG3, the CFI (0.96) dropped by 0.01 compared to Model MG2, while NNFI (0.96) and RMSEA (0.067) remained the same as Model MG 2. There was, therefore, support for the invariance of factor loadings and factor variances/ covariances across the two groups.

In Model MG4, all parameters were specified to be equivalent across the two groups. Compared with (Model MG 3) CFI (0.95) and NNFI (0.95) both dropping by 0.01 and RMSEA (0.077) increasing by 0.01 compared to Model





MG 3. In conclusion, the overall model supported the invariance of the factor loadings, factor variances/covariances and uniquenesses across males and females.



Table 16  
Summary of FCQ models and goodness of fit statistics across the two groups  
(Invariance test)

FCQ	$\chi^2$	df	$\Delta \chi^2$	df	$\Delta \chi^2 / \Delta df$	RMSEA	NNFI	CFI	Model description
MG 1	855.20	240	-	-	-	0.069	0.96	0.97	INV=none; Free=FL,FV/FCV, Uniq
MG 2	883.97	253	28.77	13	2.2	0.068	0.96	0.97	INV=FL; Free=FV/FCV, Uniq
MG 3	917.40	268	33.43	15	2.2	0.067	0.96	0.96	INV=FL, FV/FCV; Free=Uniq
MG 4	1214.50	291	297.1	23	12.9 ***	0.077	0.95	0.95	INV=ALL

Notes: 1) Correlated error terms for items 1-2, 8-9, 8-10, 12-13 and 12-14 were included due to CFA Model Modification. 5 pairs of items were highly correlated and correlated error terms for these pairs of items were included in the revised models.  
2) RMSEA=root mean square error of approximation; NNFI=non-normed fit index; CFI=normed comparative fit index.

Summary

The set of invariance tests across gender provide evidence of measurement equivalence across males and females on the various scales used in this study. Having established invariance across gender I may now proceed to examine gender differences on each of the scales (p.206), as well as compare the multiple regression analyses by gender (p.209).

### 7.3. Scale Reliabilities

Table 17 presents the descriptive statistics and internal consistency reliability coefficients of each of the scales computed on the basis of the confirmatory factor analyses of the main study. The reliability coefficients of Self-efficacy subscales were 0.92 (Chinese self-efficacy) and 0.95 (English self-efficacy). The reliability coefficients of Self-concept subscales were 0.94 (English self-concept) and 0.90 (Chinese self-concept). The reliability coefficients of “Fear of experiencing shame and embarrassment” and “Fear of upsetting important other” were 0.85 and 0.92. Finally, the reliability coefficients of Facilitating Conditions subscales ranged from 0.61 to 0.95. (The reliability for peer positive was 0.48 in the pilot study but it improved to 0.61 in the main study). These results indicate that all scales had adequate internal reliabilities. The commonly accepted rule of thumb is an alpha of 0.6-0.7 (Cronbach, 1951).



*Table 17*  
*Descriptive Statistics and Reliability (Cronbach's  $\alpha$ ) of the scales*

	No. of items	<i>N</i>	<i>M</i>	<i>SD</i>	Cronbach's $\alpha$
Self-efficacy (SE)					
Chinese (Chi)	8	1,091	3.08	0.73	0.92
English (Eng)	8	1,091	3.12	0.91	0.95
Self-concept (SC)					
English (Eng)	5	1,092	2.84	1.06	0.94
Chinese (Chi)	5	1,092	3.12	0.89	0.90
Fear of Failure (FF)					
Fear of experiencing shame and embarrassment	7	1,091	2.54	0.87	0.85
Fear of upsetting important other	5	1,089	2.97	1.16	0.92
Facilitating Conditions (FCQ)					
Peer Positive (PeerP)	4	1,077	3.62	0.68	0.61
Peer Negative (PeerN)	3	1,081	1.91	0.93	0.89
Parent Positive (ParentP)	4	1,079	3.84	0.78	0.81
Parent Negative (ParentN)	4	1,078	1.76	0.93	0.95
Teacher (Teacher)	3	1,078	3.55	0.78	0.74



#### 7.4. Correlations

Table 18 presents the correlations of the 4 scales (Self-efficacy (SE), Self-concept (SC), Fear of Failure (FF), Facilitating Condition Questionnaire (FCQ)) and 13 factors (Self-efficacy in Chinese, Self-efficacy in English, Self-concept in Chinese, Self-concept in English, Fear of Failure in Fear of experiencing shame and embarrassment, Fear of Failure in Fear of upsetting important other, Peer positive, Peer negative, Parent positive, Parent negative, Teacher support, students' English achievement score and students' Chinese achievement score) for the present study. The results on the correlation coefficients within the four scales and between the sub-scales will be presented as following.

##### *Correlations within Self-efficacy for Learning and Performance (SE)*

The two factors (English self-efficacy and Chinese self-efficacy) of Self Efficacy for Learning and Performance Scale were correlated. Self-efficacy in English had a significant positive correlation with Self-efficacy in Chinese ( $r=0.23$ ).

##### *Correlations within Self-Description Questionnaire (SC)*

The two factors (English self-concept and Chinese self-concept) of Self-Description Questionnaire were correlated. Self-concept in English had a significant negative correlation with Self-concept in Chinese ( $r=-0.07$ ).

*Correlations within The Performance Failure Appraisal Inventory (FF)*

The two factors (Fear of Experiencing Shame and Embarrassment and Fear of Upsetting Important Others) of The Performance Failure Appraisal Inventory were correlated. Fear of Experiencing Shame and Embarrassment had a significant positive correlation with Fear of Upsetting Important Others ( $r=0.50$ ).

*Correlations within Facilitating Condition Questionnaire (FCQ)*

The correlations among the factors of the Facilitating Condition Questionnaire indicated that Peer positive had a significant positive correlation with teacher support ( $r=0.26$ ) and parent positive ( $r=0.27$ ). There was also had a significant positive correlation between teacher support and parent positive ( $r=0.44$ ). In addition, Peer positive had a significant negative correlation with Peer negative ( $r=-0.35$ ). There was also had a significant negative correlation between Parent positive and Parent negative ( $r=-0.29$ ).

The above correlations are theoretically meaningful and give further construct validity for the scales used in the main study.



*Correlations within Academic Achievement (AA)*

The two measures of students' academic achievement were correlated. Students' English exam scores were significantly positive correlated with their Chinese scores ( $r=0.44$ ).

*Correlations between Facilitating Condition Questionnaire (FCQ) and Self-efficacy for Learning and Performance (SE)*

Subscales of the Facilitating Condition Questionnaire and Self-efficacy for Learning and Performance were correlated. Among these five factors, Self-efficacy in Chinese had a significant positive correlation with Peer positive ( $r=0.16$ ), Parent positive ( $r=0.28$ ), Teacher support ( $r=0.31$ ) but had a significant negative correlation with Peer negative ( $r=-0.16$ ) and Parent negative ( $r=-0.16$ ). In addition, Self-efficacy in English had a significant positive correlation with Peer positive ( $r=0.16$ ), Parent positive ( $r=0.33$ ), Teacher support ( $r=0.29$ ) but had a significant negative correlation with Peer negative ( $r=-0.10$ ) and Parent negative ( $r=-0.10$ ).

*Correlations between Facilitating Condition Questionnaire (FCQ) and Self-Description Questionnaire (SC)*

Among the five Facilitating Condition factors, Self-concept in English had a significant positive correlation with Peer positive ( $r=0.13$ ), Parent positive



( $r=0.33$ ), Teacher support ( $r=0.23$ ) but had a small significant negative correlation with Peer negative ( $r=-0.09$ ) and Parent negative ( $r=-0.09$ ). In addition, Self-concept in Chinese had a small significant positive correlation with Parent positive ( $r=0.18$ ), Teacher support ( $r=0.21$ ) but had a small significant negative correlation with Peer negative ( $r=-0.09$ ) and Parent negative ( $r=-0.09$ ).

*Correlations between Facilitating Condition Questionnaire (FCQ) and The Performance Failure Appraisal Inventory (FF)*

Among the five Facilitating Condition factors, Fear of Experiencing Shame and Embarrassment was significant positively correlated with Peer negative ( $r=0.10$ ) and Parent negative ( $r=0.10$ ). In addition, Fear of Upsetting Important Others was significantly positively correlated with Parent positive ( $r=0.08$ ).

*Correlations between Self-efficacy for Learning and Performance (SE) and Academic Achievement (AA)*

Self-efficacy in Chinese had a small but significant positive correlation with the English achievement score ( $r=0.08$ ) and the Chinese achievement score ( $r=0.40$ ). Furthermore, Self-efficacy in English also had a significant positive correlation with the English achievement score ( $r=0.53$ ) and the Chinese achievement score ( $r=0.10$ ). It should be noted that the correlations with like cognate areas were stronger than those between non-cognate areas.





*Correlations between Self-Description Questionnaire (SC) and Academic Achievement (AA)*

Self-concept in English had a significant positive correlation with the English achievement score ( $r=0.59$ ) and the Chinese achievement score ( $r=0.12$ ). Furthermore, self-concept in Chinese also had a significant positive correlation with the Chinese achievement score ( $r=0.40$ ) but a small negative but significant correlation with the English achievement score ( $r=-0.07$ ).

*Correlations between The Performance Failure Appraisal Inventory (FF) and Academic Achievement (AA)*

The correlations among the factors of the fear of failure and academic achievement were non-significant in the present study.

*Correlations between Facilitating Condition Questionnaire (FCQ) and academic achievement*

Among the five Facilitating Condition factors, Peer positive had a significant positive correlation with the English achievement score ( $r=0.13$ ), and the Chinese achievement score ( $r=0.12$ ). In addition, Parent positive had a significant positive correlation with the English achievement score ( $r=0.25$ ) and the Chinese achievement score ( $r=0.21$ ). Teacher support had a significant positive correlation with the English achievement score ( $r=0.19$ ) and the



Chinese achievement score ( $r=0.20$ ). Peer negative had significant negative correlation with the English achievement score ( $r=-0.11$ ) and the Chinese achievement score ( $r=-0.10$ ). Parent negative also had a significant negative correlation with the English achievement score ( $r=-0.11$ ) and the Chinese achievement score ( $r=-0.10$ ).

### ***Summary***

The results on the correlation coefficients within the four scales (SE, SC, FF & FCQ) and between the sub-scales (English SE, Chinese SE, English SC, Chinese SC, fear of experiencing shame and embarrassment, fear of upsetting important others, peer positive, peer negative, parent positive, parent negative and teacher support, English score and Chinese score) showed that self-efficacy in Chinese and self-efficacy in English had significant positive correlations with students' English and Chinese achievement scores. Students' self-concept in English had significant positive correlation with both their English and Chinese scores. But students' self-concept in Chinese only showed significant positive correlation with the Chinese achievement score but not with their English achievement score. Furthermore, most of the Facilitating Condition factors are significantly positively correlated with students' academic achievement, except Peer negative and Parent negative. But the factors of students' fear of failure did not have significant relationships with their academic achievement.



In the overall results, English Self-efficacy and English Self-concept were most correlated with students' English achievement score, while the Chinese self-concept was moderately correlated with students' Chinese achievement score. Parent positive and Teacher support were also moderately correlated with students' English achievement score. Despite the significant results, some of the positive correlations are actually very small, especially when the sample size is large in my study.



**Table 18**  
**Intercorrelations between scales and sub-scales for Hong Kong secondary school students (N=1069)**

	self-efficacy (Chi)	self-efficacy (Eng)	self-concept (Chi)	self-concept (Eng)	fear of failure (shame)	fear of failure (upset)	peer_ pos	peer_ neg	parent_ pos	parent_ neg	tea_ support	Eng score	Chi score
self-efficacy (Chi)	1.00												
self-efficacy (Eng)	0.23**	1.00											
self-concept (Chi)	0.71**	-0.05**	1.00										
self-concept (Eng)	0.08**	0.82**	-0.07*	1.00									
fear of failure (shame)	-0.05	0.03	0.02	-0.04	1.00								
fear of failure (upset)	-0.04	0.01	0.02	-0.04	0.50**	1.00							
peer_pos	0.16**	0.16**	0.13**	0.07*	0.01	0.00	1.00						
peer_neg	-0.16**	-0.10**	-0.09**	-0.09**	0.10**	0.12	-0.35**	1.00					
parent_pos	0.28**	0.33**	0.33**	0.18**	0.05	0.08**	0.27**	-0.25**	1.00				
parent_neg	-0.16**	-0.10**	-0.09**	-0.09**	0.10**	0.02	-0.31**	0.62**	-0.29**	1.00			
tea_support	0.31**	0.29**	0.23**	0.21**	0.02	0.04	0.26**	-0.17**	0.44**	-0.17**	1.00		
Eng score	0.08**	0.53**	0.59**	-0.07*	-0.01	-0.03	0.13**	-0.11**	0.25**	-0.11**	0.19**	1.00	
Chi score	0.40**	0.10**	0.12**	0.40**	-0.01	-0.05	0.12**	-0.10**	0.21**	-0.10**	0.20**	0.44**	1.00

Notes: 1) \* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$

2) self-efficacy (chi) = Self-efficacy in Chinese, self-efficacy (eng) = Self-efficacy in English, self-concept (eng) = self-concept in English, self-concept (chi) = self-concept in Chinese, fear of failure (shame) = Fear of Experiencing shame and embarrassment, fear of failure (upset) = Fear of Upsetting important others, Peer pos = peer positive, Peer neg = peer negative, Parent pos = parent positive, Parent neg = parent negative, Tea support = teacher support, Eng score = students' English score, Chi score = students' Chinese score.



## 7.5. Multiple Regressions

In simple linear regression, one predictor variable is used to predict a response variable by using a straight-line fit. In multiple regression analysis, more than one predictor variable is used in the analysis. Researchers use the term “independent variables” to identify those variables that might influence the outcome variables named “dependent variables”. At times the term “predictor variables” is used for the independent variables that might predict the scores on another variable often referred to as the “criterion variable”. Pearson (1908) posited the general purpose of multiple regression is to examine the relationship between several independent or predictor variables and a dependent or criterion variable. Thus, multiple regression is a statistical technique that is used to predict one’s score on one variable on the basis of their scores on several other variables.

### i) *Beta (standardized regression coefficients)*

The *beta* value is a measure of how strong each predictor variable predicts the criterion variable. The higher the *beta* value the greater the prediction of the predictor variable on the criterion variable. The *beta* regression coefficient is computed to make comparisons of the strengths of the relationship between each predictor variable and the criterion variable (Brace, Kemp & Srelgar, 2006).



ii) *R Square ( $R^2$ )*

$R^2$  is the square of the measure of correlation and indicates the proportion of the variance in the criterion variable which is accounted for by the independent variables. Thus it indicates how effective the independent variables are in predicting the criterion variable (Brace, Kemp & Srelgar, 2006).

iii) *Adjusted R Square (Adjusted  $R^2$ )*

*Adjusted  $R^2$*  takes into account the number of independent variables and the number of observations (participants) in the multiple regression. Thus, *adjusted  $R^2$*  gives a more useful measure of the strength of the relationship between independent variables and the criterion variable than  $R^2$  (Brace, Kemp & Srelgar, 2006).

iv) *Multicollinearity*

The term multicollinearity is used to describe the situation when a high correlation is detected between two or more predictor variables. The high correlations may cause problems when trying to draw inferences about the relative contribution of each predictor variable to the model (Brace, Kemp & Srelgar, 2006). In this study, the predictor, Peer Negative of facilitating conditions Questionnaire was excluded from the regression analysis because of multicollinearity



In this study, multiple regressions is used to examine a number of research questions related to the strength of relationship between a range of cognitive factors and facilitating variables (the independent variables) and students' academic achievement in Chinese and English Languages (the outcome or criterion variables). In particular, multiple regressions is used to evaluate what are the most significant predictors of academic achievement in Chinese and English.

#### *7.5.1. Research Questions*

The following eight research questions refer to how the socio-cultural factors (peer support, parent support and teacher support) and cognitive factors (self-efficacy, self-concept and fear of failure) predict students' academic achievement in the Hong Kong context.



***Research Question 3: Does self-efficacy predict Hong Kong students' academic achievement in English/Chinese language?***

Multiple regression analyses were used to explore the relative strength of Chinese and English self-efficacy in predicting academic achievement in Chinese and English.

***Research Question 3a: Does self-efficacy in language (Chinese and English) predict Hong Kong students' academic achievement in Chinese?***

When Chinese self-efficacy and English self-efficacy were entered as a block, Chinese self-efficacy was a significant predictor of Chinese achievement ( $\beta=0.39$ ,  $p<0.001$ ), while English self-efficacy was non-significant ( $\beta=0.01$ ,  $p=0.79$ ). Chinese self-efficacy predicted approximately 15% of the variance in Chinese achievement ( $Adjusted R^2=0.15$ ),  $F(1, 1,092)=98.192$ ,  $p<0.001$ .

***Research Question 3b: Does self-efficacy in language (Chinese and English) predict Hong Kong students' academic achievement in English?***

When Chinese self-efficacy and English self-efficacy were entered as a block, English self-efficacy was a significant predictor of English achievement ( $\beta=0.54$ ,  $p<0.001$ ), while Chinese self-efficacy was non-significant ( $\beta=-0.05$ ,  $p=0.08$ ). English self-efficacy predicted approximately 29% of the variance in English achievement, ( $Adjusted R^2=28\%$ ),  $F(1, 1,092)=213.158$ ,  $p<0.001$ .





### *Summary*

These results indicate that, in line with self-efficacy theory, self-efficacy is domain specific. The unstandardized regression coefficients (B), the standard error (SE B) and the standardized regression coefficients ( $\beta$ ) of the model are reported in Table 19.



*Table 19*  
*Multiple regression analysis for self-efficacy in Chinese and English predicting academic achievement in Chinese and English (N=1029)*

	Chinese score			English score		
	B	SE B	$\beta$	B	SE B	$\beta$
Predictors						
Chinese self-efficacy	0.52	0.04	0.39***	-0.07	0.04	-0.05
English self-efficacy	0.01	0.03	0.01	0.67	0.03	0.54***
Total $R^2$		0.16***			0.29***	
Adjusted $R^2$		0.15***			0.28***	

Notes: \* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$



***Research Question 4: Does self-concept predict Hong Kong students' academic achievement in English/Chinese language?***

Multiple regression analyses were used to explore the relative strength of Chinese and English self-concept in predicting academic achievement.

***Research Question 4a: Does self-concept in language (Chinese and English) predict Hong Kong students' academic achievement in Chinese?***

When Chinese self-concept and English self-concept were entered as a block, Chinese self-concept was a significant predictor of Chinese achievement ( $\beta=0.40$ ,  $p<0.001$ ). In addition, English self-concept was a significant predictor of Chinese achievement ( $\beta=0.15$ ,  $p<0.001$ ) as well. Chinese self-concept and English self-concept predicted approximately 18% of the variance in Chinese achievement, (*Adjusted*  $R^2 = 18\%$ ),  $F(1, 1,092) = 114.031$ ,  $p<0.001$ .

***Research Question 4b: Does self-concept in language (Chinese and English) predict Hong Kong students' academic achievement in English?***

When Chinese self-concept and English self-concept were entered as a block, English self-concept was a significant predictor of English achievement ( $\beta=0.58$ ,  $p<0.001$ ), while Chinese self-concept was non-significant ( $\beta=-0.03$ ,  $p=0.31$ ). English self-concept predicted approximately 34% of the variance in English achievement, (*Adjusted*  $R^2 = 34\%$ ),  $F(1, 1,092) = 271.976$ ,  $p<0.001$ .



### ***Summary***

The results indicated that students' Chinese self-concept was a stronger predictor of Chinese achievement than English self-concept, although English self-concept was a positive predictor of Chinese language achievement. English self-concept strongly and positively predicted English achievement. Chinese self-concept was non-significant. The unstandardized regression coefficients (B), the standard error (SE B) and the standardized regression coefficients ( $\beta$ ) of the model are reported in Table 20.



Table 20

*Multiple regression analysis for self-concept in Chinese and English predicting academic achievement in Chinese and English (N=1029)*

	Chinese score			English score		
	B	SE B	$\beta$	B	SE B	$\beta$
Predictors						
Chinese self-concept	0.43	0.03	0.40***	-0.03	0.03	-0.03
English self-concept	0.14	0.03	0.15***	0.62	0.03	0.58***
Total $R^2$		0.18***			0.34***	
Adjusted $R^2$		0.18***			0.34***	

Notes: \* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$



***Research Question 5: Does fear of failure predict Hong Kong students' academic achievement in English/Chinese language?***

Multiple regression analyses were used to explore the relative strength of the two types of fear of failure (i.e., fear of experiencing shame and embarrassment, and fear of upsetting important other) in predicting academic achievement in Chinese and English.

*Research Question 5a:* Do fear of experiencing shame and embarrassment, and fear of upsetting important other predict Hong Kong students' academic achievement in Chinese?

Students' (fear of experiencing shame and embarrassment) and (fear of upsetting important other) were non-significant in predicting Chinese achievement, ( $\beta=0.02$ ,  $p=0.68$ ) in (fear of experiencing shame and embarrassment) and  $\beta=-0.06$ ,  $p=0.11$ ) in (fear of upsetting important other).

*Research Question 5b:* Do fear of experiencing shame and embarrassment and fear of upsetting important other predict Hong Kong students' academic achievement in English?

Students' (fear of upsetting important other) and (fear of upsetting important other) were non-significant in predicting English achievement, ( $\beta=0.01$ ,  $p=0.89$ )



in (fear of experiencing shame and embarrassment) and  $\beta=-0.04$ ,  $p=.31$ ) in (fear of upsetting important other).

### ***Summary***

The results indicated that fear of failure (fear of experiencing shame and embarrassment) and fear of failure (fear of upsetting important other) did not predict Chinese achievement or English achievement. The unstandardized regression coefficients (B), the standard error (SE B) and the standardized regression coefficients ( $\beta$ ) of the model are reported in Table 21.



*Table 21*  
*Multiple regression analysis for fear of failure predicting academic achievement (N=1029)*

Predictors	Chinese score			English score		
	B	SE B	$\beta$	B	SE B	$\beta$
Fear of experiencing shame and embarrassment	0.02	0.04	0.02	0.01	0.05	0.01
Fear of upsetting important other	-0.05	0.03	-0.06	-0.04	0.03	-0.04
Total $R^2$		0.003			0.001	
Adjusted $R^2$		0.001			0.000	





***Research Question 6: Do facilitating conditions (peer support, parent support and teacher support) predict Hong Kong students' academic achievement in English/Chinese language?***

Multiple regression analyses were used to explore the relative strength of peer support (peer positive and peer negative), parent support (parent positive and parent negative), and teacher support in predicting academic achievement.

***Research Question 6a: Do peer support (peer positive and peer negative), parent support (parent positive and parent negative) and teacher support predict Hong Kong students' academic achievement in Chinese?***

When students' peer support (peer positive and peer negative), parent support (parent positive and parent negative) and teacher support were entered as a block, they accounted for about 6% of the variance in Chinese achievement, (*Adjusted R*<sup>2</sup>=6%),  $F(1, 1,092) = 17.356, p < 0.001$ . Among the five predictors, parent positive ( $\beta = 0.14, p < 0.001$ ) and Teacher support ( $\beta = 0.12, p < 0.001$ ) were significant in predicting Chinese achievement.

***Research Question 6b: Do peer support (peer positive and peer negative), parent support (parent positive and parent negative) and teacher support predict Hong Kong students' academic achievement in English?***



When students' peer support (peer positive and peer negative), parent support (parent positive and parent negative) and teacher support were entered as a block, they accounted for about 7% of the variance in English achievement, (*Adjusted R*<sup>2</sup>=7% ),  $F(1, 1,092) = 21.18, p < 0.001$ . Among the five predictors, parent positive ( $\beta = 0.19, p < 0.001$ ) and teacher support ( $\beta = 0.09, p < 0.001$ ) were significant in predicting English achievement.

### ***Summary***

The results indicated that students' parent positive support and teacher support were almost equivalent in predicting Chinese Language achievement. However, parent positive support was a stronger predictor of English achievement than Teacher support. The unstandardized regression coefficients (B), the standard error (SE B) and the standardized regression coefficients ( $\beta$ ) of the model are reported in Table 22.



Table 22  
Multiple regression analysis for facilitating conditions (peer support, parent support and teacher support) predicting academic achievement (N=1029)

	Chinese score			English score		
	B	SE B	$\beta$	B	SE B	$\beta$
<i>Predictors</i>						
Peer positive	0.05	0.05	0.03	0.07	0.06	0.04
Parent Positive	0.18	0.04	0.14***	0.28	0.05	0.19***
Parent Negative	-0.03	0.03	-0.03	-0.03	0.04	-0.03
Teacher support	0.15	0.04	0.12***	0.13	0.05	0.09***
Total R <sup>2</sup>			0.06***			0.07***
Adjusted R <sup>2</sup>			0.06***			0.07***

Notes: 1) \* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$   
2) The predictor, Peer Negative was excluded from the regression analysis because of multicollinearity

### Full Model of the Present Study

In the previous analyses, each bank of variables (self-efficacy, self-concept, fear of failure, and facilitating conditions) have been examined separately to evaluate their separate relationships to academic achievement in Chinese and English. It is, however, important to examine whether any significant effects remain significant when controlling for other variables. For this reason the next section of the study reports multiple regression analyses with all independent variables, i.e., self-efficacy (in Chinese and English), self-concept (in Chinese and English), fear of failure (fear of experiencing shame and embarrassment, and fear of upsetting important other) and facilitating conditions (peer support, parent support and teacher support), entered in a single block to evaluate which of the independent variables are most important in predicting Chinese and English academic achievement. The predictor, peer negative, was excluded from the regression analysis because of multicollinearity. The unstandardized regression coefficients ( $B$ ), the standard error ( $SE\ B$ ) and the standardized regression coefficients ( $\beta$ ) of the model are reported in Table 23.



***Research Question 7: Do self-efficacy (in Chinese and English), self-concept (in Chinese and English), fear of failure (fear of experiencing shame and embarrassment, and fear of upsetting important other) and facilitating conditions (peer support, parent support and teacher support) predict Hong Kong students' academic achievement in English/Chinese language?***

Multiple regression analyses were used to explore the relative strength of Chinese and English self-efficacy, Chinese and English self-concept, fear of failure (fear of experiencing shame and embarrassment, and fear of upsetting important other), peer support (peer positive and peer negative), parent support (parent positive and parent negative), and teacher support in predicting academic achievement.

***Research Question 7a: Do Chinese and English self-efficacy, Chinese and English self-concept, fear of failure (fear of experiencing shame and embarrassment, and fear of upsetting important other), peer support (peer positive and peer negative), parent support (parent positive and parent negative), and teacher support predict Hong Kong students' academic achievement in Chinese?***

When students' Chinese and English self-efficacy, Chinese and English self-concept, fear of failure (fear of experiencing shame and embarrassment and fear of upsetting important other), peer support (peer positive and peer negative), parent support (parent positive and parent negative) and teacher support were



entered as a block, they accounted for about 21% of the variance in Chinese achievement, (*Adjusted R*<sup>2</sup>=21%),  $F(1, 1,092) = 28.32, p < 0.001$ . Among the eleven predictors, Chinese self-efficacy ( $\beta = 0.21, p < 0.001$ ), English self-efficacy ( $\beta = -0.16, p < 0.001$ ), English self-concept ( $\beta = 0.22, p < 0.001$ ), Chinese self-concept ( $\beta = 0.22, p < 0.001$ ), and parent positive ( $\beta = 0.07, p < 0.05$ ) were significant in predicting Chinese achievement.

*Research Question 7b: Does Chinese and English self-efficacy, Chinese and English self-concept, fear of failure (fear of experiencing shame and embarrassment and fear of upsetting important other), peer support (peer positive and peer negative), parent support (parent positive and parent negative), and teacher support predict Hong Kong students' academic achievement in English?*

When students' Chinese and English self-efficacy, Chinese and English self-concept, fear of failure (fear of experiencing shame and embarrassment and fear of upsetting important other), peer support (peer positive and peer negative), parent support (parent positive and parent negative) and teacher support were entered as a block, they accounted for about 36% of the variance in English achievement, (*Adjusted R*<sup>2</sup>=36%),  $F(1, 1,092) = 58.44, p < 0.001$ . Among the eleven predictors, English self-efficacy ( $\beta = 0.13, p < 0.001$ ) and English self-concept ( $\beta = 0.44, p < 0.001$ ) were significant in predicting English achievement. No other variables were significant.



### *Summary*

When all variable were entered as a single block there were five significant predictors for Chinese language: self-efficacy in Chinese and English, self-concept in Chinese and English, and Parent positive. It is interesting to note that English self-efficacy is a negative predictor. In contrast, only two predictors were significant in predicting English achievement, namely, English self-efficacy and English self-concept.

When comparing results with the analyses reported above, it should be noted that English self-efficacy, which was insignificant in the analyses reported on p.160, is a negative predictor in the overall model. As noted earlier, fear of failure was not a significant predictor in any analysis. It is important to note also, that while parent positive and teacher support were significant predictors in earlier analyses they are not significant predictors in the final all-in model (Parent positive has a small significant effect for Chinese language). Their effects appear to have been subsumed by the self-efficacy and self-concept variables. The unstandardized regression coefficients (B), the standard error (SE B) and the standardized regression coefficients ( $\beta$ ) of the model are reported in Table 23.



Table 23

*Multiple regression analysis on students' self-efficacy (in Chinese and English), self-concept (in Chinese and English), fear of failure (fear of experiencing shame and embarrassment and fear of upsetting important other) and facilitating conditions (peer support, parent support and teacher support) predicting academic achievement (N=1029)*

		Chinese score			English score		
		B	SE B	$\beta$	B	SE B	$\beta$
Predictors							
SE							
	Chinese Self-efficacy	0.28	0.06	0.21***	0.04	0.06	0.02
	English Self-efficacy	-0.17	0.06	-0.16***	0.16	0.06	0.13***
SC							
	English Self-concept	0.19	0.05	0.22***	0.47	0.05	0.44***
	Chinese Self-concept	0.24	0.05	0.22***	-0.09	0.05	-0.07
FF							
	Fear of experiencing shame and embarrassment	0.03	0.04	0.03	-0.00	0.04	-0.00
	Fear of upsetting important other	-0.04	0.03	-0.05	-0.04	0.03	-0.04
FCQ							
	Peer positive	0.04	0.04	0.03	0.04	0.05	0.02
	Parent Positive	0.09	0.04	0.07*	0.06	0.04	0.04
	Parent Negative	-0.01	0.03	-0.01	-0.05	0.03	-0.04
	Teacher support	0.06	0.04	0.05	0.04	0.04	0.03
Total $R^2$		0.21***			0.36***		
Adjusted $R^2$		0.20***			0.36***		

Notes: 1) \* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$

3) The predictor, Peer Negative was excluded from the regression analysis because of multicollinearity.





***Research Question 8: What are the most significant predictors of academic achievement in English/Chinese language?***

In the overall model (in research question 7), it showed that English Self-efficacy ( $\beta=0.13$ ), English self-concept ( $\beta=0.44$ ) were the most significant predictors to students English academic achievement, while the English self-concept gives a stronger prediction than that of English self-efficacy.

But Chinese self-efficacy ( $\beta=0.21$ ), Chinese self-concept ( $\beta=0.22$ ) and English self-concept ( $\beta=0.22$ ) were almost equivalent in predicting students' Chinese academic achievement. Parent positive support was also a small significant predictor ( $\beta=0.07$ ) of students' Chinese academic achievement. These findings suggest that language self-concept is the most significant predictor in students' language learning in both Chinese and English and English self-concept is an important predictor of achievement in both languages.



### 7.6.2. Gender Differences

Gender differences are examined in the present study. The independent-samples  $t$  test is used to compare the means of two independent groups in males and girls on a continuous dependent variable. Effect size is a numerical way of expressing the strength or magnitude of a reported relationship, be it causal or not. In the behavioral Sciences, Cohen (1988) gave estimates of values of  $d$  of 0.2, 0.5 and 0.8 as corresponding to small, medium and large effect sizes respectively. In the present study, a positive effect size means that male group performed better than the female group; and, a negative effect size means that female group performed better than the males group did. For the positive effect sizes, the larger the number, the more effective the boys did well in academic achievements or/and received more supports from their significant others (Whalberg, 1984).



*Research Question 9: Are there gender differences on Self-efficacy (in Chinese and English), Self-concept (in Chinese and English), fear of failure (Fear of experiencing shame and embarrassment and Fear of upsetting important other), facilitating conditions (Peer support, Parent support and Teacher support) and students' academic achievement (English and Chinese language)?*

The independent t-test was carried out to test gender differences with regard to self-efficacy, self-concept, fear of failure and facilitating conditions with regard to academic achievement. In the self-efficacy domain, female students ( $M = 3.22$ ,  $SD = 0.80$ ) had significantly more English self-efficacy than male students ( $M = 3.05$ ,  $SD = 0.98$ ),  $t(1071) = -3.13$ ,  $p < 0.001$ ,  $d = -0.19$ . Furthermore, in the self-concept domain, female students ( $M = 3.05$ ,  $SD = 0.97$ ) had significantly more English self-concept than male students ( $M = 2.68$ ,  $SD = 1.10$ ),  $t(1071) = -5.88$ ,  $p < 0.001$ ,  $d = -0.36$ .

In fear of failure, male student's fear of upsetting important other ( $M = 3.05$ ,  $SD = 1.13$ ) was significantly higher than female students ( $M = 2.89$ ,  $SD = 1.20$ ),  $t(965.83) = 2.27$ ,  $p < 0.05$ ,  $d = 0.14$ .

In facilitating conditions, female students perceived peer positive support ( $M = 3.70$ ,  $SD = 0.64$ ) significantly more than male students ( $M = 3.57$ ,  $SD = 0.70$ ),  $t(1037) = -3.15$ ,  $p < 0.001$ ,  $d = -0.19$ . Furthermore, female students perceived



parent positive support ( $M = 3.96$ ,  $SD = 0.75$ ) significantly more than male students ( $M = 3.74$ ,  $SD = 0.78$ ),  $t(1018) = -4.61$ ,  $p < 0.001$ ,  $d = -0.28$ .

In student's academic achievement, female students ( $M = 2.28$ ,  $SD = 1.15$ ) had significantly higher English achievement scores than male students ( $M = 1.89$ ,  $SD = 1.09$ ),  $t(948) = -5.48$ ,  $p < 0.001$ ,  $d = -0.34$ . Female students ( $M = 2.00$ ,  $SD = 1.03$ ) also had significantly higher Chinese score than male students ( $M = 1.58$ ,  $SD = 0.86$ ),  $t(874) = -7.12$ ,  $p < 0.001$ ,  $d = -0.44$ .

### **Summary**

Female students had higher scores in English self-efficacy, English self-concept, peer positive support, parent positive support than male students, but male student's fear of upsetting important others was higher than female students. The range of effect sizes are from -0.44 to 0.14. The number of participants ( $N$ ), Mean ( $M$ ), Standard Deviation ( $SD$ ), the t-value ( $t$ ), the p-value ( $P$ ), and the effect size are reported in Table 24.



Table 24

*T-test on gender differences on students' self-efficacy (in Chinese and English), self-concept (in Chinese and English), fear of failure (fear of experiencing shame and embarrassment and fear of upsetting important other), facilitating conditions (peer support, parent support and teacher support) and academic achievement (N=1029)*

	Gender	<i>N</i>	<i>M</i>	<i>SD</i>	<i>df</i>	<i>t</i>	sig	<i>d</i>
Chinese	male	619	3.06	0.76	1044	-0.85		-0.05
	female	464	3.10	0.69				
English	male	619	3.05	0.98	1071	-3.13	***	-0.19
	female	464	3.22	0.80				
<i>Self-concept</i>								
English	male	620	2.68	1.10	1054	-5.88	***	-0.36
	female	464	3.05	0.97				
Chinese	male	620	3.10	0.92	1041	-0.61		-0.04
	female	464	3.14	0.84				
<i>Fear of Failure</i>								
Fear of experiencing shame and embarrassment	male	619	2.53	0.88	1008	-0.71		-0.04
	female	464	2.57	0.86				
Fear of upsetting important other	male	617	3.05	1.13	966	2.27	*	0.14
	female	464	2.89	1.20				
<i>Facilitating Conditions</i>								
Peer positive	male	613	3.57	0.70	1037	-3.15	***	-0.19
	female	464	3.70	0.64				
Peer negative	male	607	1.79	0.93	993	1.06		0.07
	female	464	1.73	0.93				
Parent positive	male	607	3.74	0.78	1018	-4.61	***	-0.28
	female	464	3.96	0.75				
Parent negative	male	607	1.79	0.93	993	1.06		0.07
	female	464	1.73	0.93				
Teacher support	male	606	3.55	0.82	1044	-0.12		-0.01
	female	464	3.56	0.73				
<i>Academic Achievement</i>								
English score	male	607	1.89	1.09	947.64	-5.48	***	-0.34
	female	456	2.28	1.15				
Chinese score	male	605	1.58	0.86	873.92	-7.12	***	-0.44
	female	456	2.00	1.03				

Note: \* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$



*Research Questions 10: Are the relationships between Self-efficacy (in Chinese and English), Self-concept (in Chinese and English), Fear of failure (Fear of experiencing shame and embarrassment, and Fear of upsetting important other), facilitating conditions (Peer support, Parent support and Teacher support) and Hong Kong students' academic achievements (English and Chinese languages) similar for males and females?*

Multiple regression analyses were used to explore the relative strength of Chinese and English self-efficacy, Chinese and English self-concept, fear of failure (fear of experiencing shame and embarrassment, and fear of upsetting important other), peer support (peer positive and peer negative), parent support (parent positive and parent negative), and teacher support in predicting academic achievement by gender.

*Research Questions 10a: Do Chinese and English self-efficacy, Chinese and English self-concept, fear of failure (fear of experiencing shame and embarrassment, and fear of upsetting important other), peer support (peer positive and peer negative), parent support (parent positive and parent negative), and teacher support predict Hong Kong male students' academic achievement in Chinese and English?*



### *Male Students- Chinese Achievement*

When male students' Chinese and English self-efficacy, Chinese and English self-concept, fear of failure (fear of experiencing shame and embarrassment and fear of upsetting important other), peer support (peer positive and peer negative), parent support (parent positive and parent negative) and teacher support were entered as a block, they accounted for about 25% of the variance in Chinese achievement, (*Adjusted R*<sup>2</sup>=24%),  $F(10, 1,092) = 19.62, p < 0.001$ . Among the eleven predictors, Chinese self-efficacy ( $\beta = 0.29, p < 0.001$ ), English self-efficacy ( $\beta = -0.14, p < 0.05$ ), English self-concept ( $\beta = 0.15, p < 0.05$ ), Chinese self-concept ( $\beta = 0.24, p < 0.001$ ) were significant in predicting Chinese achievement.

### *Male Students-English Achievement*

When male students' Chinese and English self-efficacy, Chinese and English self-concept, fear of failure (fear of experiencing shame and embarrassment and fear of upsetting important other), peer support (peer positive and peer negative), parent support (parent positive and parent negative) and teacher support were entered as a block, they accounted for about 35% of the variance in English achievement, (*Adjusted R*<sup>2</sup>=34%),  $F(10, 1,092) = 31.85, p < 0.001$ . Among the eleven predictors, English self-efficacy ( $\beta = 0.14, p < 0.05$ ) and English self-concept ( $\beta = 0.44, p < 0.001$ ) were significant in predicting English achievement.



*Research Questions 10b: Do Chinese and English self-efficacy, Chinese and English self-concept, fear of failure (fear of experiencing shame and embarrassment, and fear of upsetting important other), peer support (peer positive and peer negative), parent support (parent positive and parent negative), and teacher support predict Hong Kong female students' academic achievement in Chinese and English?*

#### *Female Students-Chinese Achievement*

When female students' Chinese and English self-efficacy, Chinese and English self-concept, fear of failure (fear of experiencing shame and embarrassment and fear of upsetting important other), peer support (peer positive and peer negative), parent support (parent positive and parent negative) and teacher support were entered as a block, they accounted for about 18% of the variance in Chinese achievement, (*Adjusted R*<sup>2</sup>=20%),  $F(10, 1,092) = 11.13, p < 0.001$ . Among the eleven predictors, Chinese self-efficacy ( $\beta = 0.15, p < 0.05$ ), English self-concept ( $\beta = 0.17, p < 0.05$ ), Chinese self-concept ( $\beta = 0.20, p < 0.001$ ), Peer positive ( $\beta = 0.11, p < 0.05$ ), Parent Positive ( $\beta = 0.10, p < 0.05$ ) and Teacher support ( $\beta = 0.10, p < 0.05$ ) were significant in predicting Chinese achievement.

#### *Female Students-English Achievement*

When female students' Chinese and English self-efficacy, Chinese and English self-concept, fear of failure (fear of experiencing shame and embarrassment and





fear of upsetting important other), peer support (peer positive and peer negative), parent support (parent positive and parent negative) and teacher support were entered as a block, they accounted for about 35% of the variance in English achievement, (*Adjusted R*<sup>2</sup>=34%),  $F(10, 1,092) = 24.12, p < 0.001$ . Among the eleven predictors, English self-efficacy ( $\beta = 0.16, p < 0.05$ ) and English self-concept ( $\beta = 0.38, p < 0.001$ ) were significant in predicting English achievement.

### ***Summary***

For the male students, when all variable were entered as a single block there were four significant predictors for Chinese language: self-efficacy in Chinese and English and self-concept in Chinese and English. It is interesting to note that English self-efficacy is also a significant negative predictor in this male student's model which is same as the overall model mentioned previously. In contrast, only two predictors were significant in predicting English achievement, namely, English self-efficacy and English self-concept.

For the female students, when all variables were entered as a single block there were six significant predictors for Chinese language: self-efficacy in Chinese and self-concept in Chinese and English, peer positive, parent positive and teacher support. In contrast, only two predictors were significant in predicting English achievement, namely, English self-efficacy and English self-concept.



When comparing results with the analyses reported above, it should be noted that English self-efficacy, which was insignificant in the analyses reported on p.160, is a negative predictor in the overall model and this male model. Fear of failure was not a significant predictor in male or female models. It is important to note that parent positive, parent negative and teacher support were significant predictors in female model but not in male model. As mentioned earlier, self-efficacy and self-concept appear to be important to both male and female students' learning achievement. The unstandardized regression coefficients (B), the standard error (SE B) and the standardized regression coefficients ( $\beta$ ) of the model are reported in Table 25.



Table 25

*Multiple regression analysis on students' self-efficacy (in Chinese and English), self-concept (in Chinese and English), fear of failure (fear of experiencing shame and embarrassment and fear of upsetting important other) and facilitating conditions (peer support, parent support and teacher support) predicting academic achievement in gender differences (N=1029)*

Predictors	Males						Females					
	Chinese score			English score			Chinese score			English score		
	B	SE B	$\beta$	B	SE B	$\beta$	B	SE B	$\beta$	B	SE B	$\beta$
SE												
Chinese Self-efficacy	0.32	0.06	0.29***	0.10	0.08	0.07	0.22	0.10	0.15*	-0.05	0.11	-0.03
English Self-efficacy	-0.12	0.06	-0.14*	0.15	0.07	0.14*	-0.13	0.10	-0.11	0.23	0.10	0.16*
SC												
English Self-concept	0.12	0.05	0.15*	0.44	0.06	0.44***	0.18	0.08	0.17*	0.45	0.08	0.38***
Chinese Self-concept	0.23	0.05	0.24***	-0.07	0.06	-0.06	0.24	0.08	0.20***	-0.14	0.08	-0.10
FF												
Fear of experiencing shame and embarrassment	0.02	0.04	0.02	-0.01	0.05	-0.01	0.02	0.06	0.02	-0.01	0.06	-0.01
Fear of upsetting important other	-0.02	0.03	-0.02	-0.02	0.04	-0.02	-0.05	0.04	-0.05	-0.06	0.04	-0.06
FCQ												
Peer positive	-0.07	0.05	-0.06	-0.03	0.06	-0.02	0.17	0.08	0.11*	0.14	0.08	0.08
Parent Positive	0.00	0.05	0.00	0.02	0.06	0.02	0.14	0.07	0.10*	0.07	0.07	0.04
Parent Negative	-0.01	0.04	-0.01	-0.04	0.04	-0.03	0.01	0.05	0.01	-0.07	0.05	-0.06
Teacher support	0.05	0.04	0.05	0.03	0.05	0.02	0.14	0.07	0.10*	0.10	0.07	0.06
Total $R^2$		0.25***			0.35***			0.20***			0.35***	
Adjusted $R^2$		0.24***			0.34***			0.18***			0.34***	

Notes: 1) \* $p < 0.05$ ; \*\* $p < 0.01$ ; \*\*\* $p < 0.001$

2) The predictor, Peer Negative was excluded from the regression analysis because of multicollinearity.



## CHAPTER EIGHT

### DISCUSSION

#### 8.1. Purpose of the Research and Research Questions

Chinese culture attaches a great deal of importance to academic achievement. The present study examines socio-cultural factors (i.e., parental support, peer support, and teacher support), cognitive factors (i.e., self-efficacy, self-concept and fear of failure) and the prediction of secondary school students' academic achievement in English and Chinese subjects in Hong Kong.

The ten research questions in the present study are presented below and the discussion relates to each of these questions in turn. Hence, the implications of the findings will be discussed in this section as well.



## 8.2. Research Questions:

- 1) Are the measures used in this research (Self-efficacy for learning and performance scale, Self-description questionnaire scales, The performance failure appraisal inventory and Facilitating Conditions Questionnaire) valid and reliable for the Hong Kong students participating in this study?
  
- 2) Are the measures (Self-efficacy for learning and performance scale, Self-description questionnaire scales, The performance failure appraisal inventory and Facilitating Conditions Questionnaire) invariant by gender?
  
- 3) Does self-efficacy predict Hong Kong students' academic achievement in language?
  - 3a: Does self-efficacy in language (Chinese and English) predict Hong Kong students' academic achievement in Chinese?*
  - 3b: Does self-efficacy in language (Chinese and English) predict Hong Kong students' academic achievement in English?*
  
- 4) Does self-concept predict Hong Kong students' academic achievement in language?
  - 4a: Does self-concept in language (Chinese and English) predict Hong Kong students' academic achievement in Chinese?*
  - 4b: Does self-concept in language (Chinese and English) predict Hong Kong students' academic achievement in English?*



5) Does fear of failure predict Hong Kong students' academic achievement?

*5a: Do fear of experiencing shame and embarrassment, and fear of upsetting important other predict Hong Kong students' academic achievement in Chinese?*

*5b: Do fear of experiencing shame and embarrassment and fear of upsetting important other predict Hong Kong students' academic achievement in English?*

6) Do facilitating conditions (Peer support, Parent support and Teacher support) predict Hong Kong students' academic achievement?

*6a: Do peer support (peer positive and peer negative), parent support (parent positive and parent negative) and teacher support predict Hong Kong students' academic achievement in Chinese?*

*6b: Do peer support (peer positive and peer negative), parent support (parent positive and parent negative) and teacher support predict Hong Kong students' academic achievement in English?*

7) Do Self-efficacy (in Chinese and English), Self-concept (in Chinese and English), Fear of failure (Fear of experiencing shame and embarrassment, and Fear of upsetting important other), and facilitating conditions (Peer support, Parent support and Teacher support) predict Hong Kong students' academic achievement?

*7a: Do Chinese and English self-efficacy, Chinese and English self-concept, fear of failure (fear of experiencing shame and embarrassment,*



*and fear of upsetting important other), peer support (peer positive and peer negative), parent support (parent positive and parent negative), and teacher support predict Hong Kong students' academic achievement in Chinese?*

*7b: Does Chinese and English self-efficacy, Chinese and English self-concept, fear of failure (fear of experiencing shame and embarrassment and fear of upsetting important other), peer support (peer positive and peer negative), parent support (parent positive and parent negative), and teacher support predict Hong Kong students' academic achievement in English?*

- 8) What are the most significant predictors of academic achievement in English and Chinese language?
- 9) Are there gender differences on Self-efficacy (in Chinese and English), Self-concept (in Chinese and English), fear of failure (Fear of experiencing shame and embarrassment and Fear of upsetting important other), facilitating conditions (Peer support, Parent support and Teacher support) and students' academic achievement (English and Chinese language)?
- 10) Are the relationships between Self-efficacy (in Chinese and English), Self-concept (in Chinese and English), Fear of failure (Fear of experiencing shame and embarrassment, and Fear of upsetting important other), facilitating conditions (Peer support, Parent support and Teacher



support) and Hong Kong students' academic achievements (English and Chinese languages) similar for males and females?

*10a: Do Chinese and English self-efficacy, Chinese and English self-concept, fear of failure (fear of experiencing shame and embarrassment, and fear of upsetting important other), peer support (peer positive and peer negative), parent support (parent positive and parent negative), and teacher support predict Hong Kong male students' academic achievement in Chinese and English?*

*10b: Do Chinese and English self-efficacy, Chinese and English self-concept, fear of failure (fear of experiencing shame and embarrassment, and fear of upsetting important other), peer support (peer positive and peer negative), parent support (parent positive and parent negative), and teacher support predict Hong Kong female students' academic achievement in Chinese and English?*

### 8.3. Methodology Used in the Present Study

This research adopted a quantitative approach in which 1,092 students (S2 to S5) from four Hong Kong secondary schools were asked to complete a questionnaire to report their perceived socio-cultural influences, their personal beliefs and academic achievement. Confirmatory factor analyses established the validity and reliability of the instruments used, and results showed an acceptable validity and reliability for all measures. The four scales used in the





present study included: Self-efficacy for Learning and Performance scale, Self-Description Questionnaire II, The Performance Failure Appraisal Inventory and Facilitating Conditions Questionnaire. In order to address the research questions, exploratory and confirmatory factor analyses, *t*-tests and multiple regressions analyses were used. The major findings of the CFAs, *t*-tests and regression analyses and their implications are discussed in the following sections.

#### 8.4. Major Findings of the Present Study

*Research Question One: Are the measures used in this research (Self-efficacy for learning and performance scale, Self-description questionnaire scales, The performance failure appraisal inventory and Facilitating Conditions Questionnaire) valid and reliable for the Hong Kong students participating in this study?*

*Research Question Two: Are the measures (Self-efficacy for learning and performance scale, Self-description questionnaire scales, The performance failure appraisal inventory and Facilitating Conditions Questionnaire) invariant by Gender?*

Both exploratory factor analysis and confirmatory factor analysis provide evidence for the construct validity of the measures used in this study for Hong



Kong students, and the measures are invariant by gender in research question one and two.

This following section concerns how socio-cultural factors (parental support, peer support, and teacher support) and cognitive factors (self-efficacy, self-concept and fear of failure) predict secondary students' learning outcomes in terms of English and Chinese language achievement.

*8.4.1. How Do Cognitive Factors (Self-efficacy, Self-concept and Fear of Failure) Predict Hong Kong Students' Academic Achievement?*

***Research Question 3: Does self-efficacy predict Hong Kong students' academic achievement in language?***

Self-efficacy appears a significant cognitive predictor of Hong Kong students' academic achievement when all socio-cultural factors (parent, peer and teacher influences) are controlled. In addition, self-efficacy is shown to predict Hong Kong students' English and Chinese academic achievement (research question three). The findings indicate that, in line with self-efficacy theory, self-efficacy is domain specific. Students' Chinese self-efficacy significantly and positively predicts their Chinese score and their English self-efficacy significantly and positively predicts their English score.



The implication of this finding suggests that by enhancing students' English self-efficacy their achievement in English may increase. In addition, it also indicates that enhancing students' Chinese self-efficacy could increase their Chinese achievement. It could be done through several channels i.e., schools, parents and teachers. It is essential for parents and teachers to be involved in students' English and Chinese learning in order to enhance students' English and Chinese self-efficacy. How to enhance students' Chinese and English self-efficacy will be presented in the next chapter.

***Research Question 4: Does self-concept predict Hong Kong students' academic achievement in language?***

The findings in research question four of the current study indicate that self-concept is a significant cognitive predictor of Hong Kong students' academic achievement. The findings, moreover, indicate that students' Chinese language self-concept was a stronger predictor of Chinese language achievement than English self-concept, although English self-concept was a positive predictor of Chinese language achievement. English self-concept strongly and positively predicted English language achievement, and its prediction was stronger for English achievement ( $\beta = 0.58$ ) than Chinese achievement ( $\beta = 0.15$ ). Chinese self-concept was a non-significant predictor of English language achievement. These findings show that English self-concept plays a notable role in both students' English and Chinese language learning, which suggests that it is important to strengthen students' English language self-concept because it has



positive flow-on effects on both their English and Chinese language achievement scores. It appears that Hong Kong students who have high English self-concept may have an overall high self-concept for language learning in general, with useful benefits to learning their native language, and perhaps other languages as well.

As it appears that English self-concept plays an important role in predicting students' achievement in both English and Chinese language learning, it might also affect students' non-language course learning as well. Schools should design and coordinate intervention programs that may improve students' English self-concept, as this might also boost their achievement in non-language subjects.

***Research Question 5: Does fear of failure predict Hong Kong students' academic achievement?***

The research findings indicated that fear of failure (fear of experiencing shame and embarrassment) and fear of failure (fear of upsetting important others) did not predict Chinese achievement or English achievement of students.

Although fear of failure has been shown in the previous studies to be a strong motivator to success and achievement, (e.g., Eaton & Dembo, 1997), it did not show a noteworthy relationship in the present study. The role of students' self-concept, especially English self-concept, is the most important factor predicting



students' English and Chinese achievement. In other words, Hong Kong students are more affected by self-concept and self-efficacy than by fear of failure. The findings that fear of failure did not have an effect on the outcome measures is somewhat surprising given the fact that there is considerable literature related to the proposed effects of fear of failure in Eastern societies, and particularly in the context of 'saving face'. This is a very important finding as the drivers of academic achievement in language learning for the students in this study appear to be self-processes that are very positive, rather than achievement being driven by a fear of disapproval and shame.

*8.4.2. How Do Socio-cultural Factors (Peer Support, Parental Support, and Teacher Support) predict Hong Kong Students' Academic Achievement?*

***Research Question Six: Do facilitating conditions (Peer support, Parent support and Teacher support) predict Hong Kong students' academic achievement?***

The findings indicate that students' perceived Parent Positive Support and Teacher Support were equivalent in predicting Chinese Language achievement. However, Parent Positive Support was a stronger predictor of English achievement than Teacher Support.



The implications of these findings are that as both Parent Positive Support and Teacher Support are major predictors of students' language learning, parents and teachers in particular should pay great attention to the language learning of the children under their care. Given that parents' positive support is the main factor affecting students' English learning, parents should be encouraged to give more support such as praise warmth and love to their children's English learning.

***Research Question 7: Do Self-efficacy (in Chinese and English), Self-concept (in Chinese and English), Fear of failure (Fear of experiencing shame and embarrassment, and Fear of upsetting important other), and facilitating conditions (Peer support, Parent support and Teacher support) predict Hong Kong students' academic achievement?***

The findings indicate that self-efficacy in Chinese and English, self-concept in Chinese and English, and Parent Positive Support are significant predictors of students' learning outcome in Chinese language when other variables are controlled in the regression analysis. It is worthy of note that English self-efficacy is a negative predictor. In contrast, only two predictors are significant in predicting English achievement, namely, English self-efficacy and English self-concept.

Student's English self-concept is a very strong predictor in predicting students' English achievement score than that of their English self-efficacy. It shows that



English self-concept plays a more important role than English self-efficacy in students' English language learning achievement. In addition, student's English self-concept has similar effect with English self-efficacy in predicting their Chinese achievement score.

***Research Question 8: What are the most significant predictors of academic achievement in English and Chinese language?***

English Self-efficacy and English self-concept were the most significant predictors to students English academic achievement. But Chinese self-efficacy, Chinese self-concept and English self-concept were almost equivalent in predicting students' Chinese academic achievement. In socio-cultural factors, parent positive support was also a small significant predictor to students' Chinese academic achievement.

***8.4.3. Conclusion***

There were five significant predictors for Chinese achievement: they were self-efficacy in Chinese and English, self-concept in Chinese and English and Parent Positive. English self-efficacy was a negative predictor of Chinese achievement. Two predictors, English self-efficacy and English self-concept were significant in predicting English achievement.



As mentioned earlier in the literature review (p.30), Cummins (1979) stated that students attending English high schools usually have good Chinese proficiency, because they are highly motivated to learn English, and are highly motivated to maintain and develop their Chinese skills as well. In addition, students who are good in English achievement probably have higher intellectual capability and thus those who study in English school are doing well in Chinese language and others subjects as well. In light of this, it is essential to enhance students' English self-concept so as to enhance their performance in English language and other non-language subjects.

#### *8.4.4. Gender Differences in Chinese Culture that Affect Students' Academic Achievement in T-Test Analysis*

***Research Question 9: Are there gender differences on Self-efficacy (in Chinese and English), Self-concept (in Chinese and English), fear of failure (Fear of experiencing shame and embarrassment and Fear of upsetting important other), facilitating conditions (Peer support, Parent support and Teacher support) and students' academic achievement (English and Chinese language)?***

As previously mentioned in the literature review (p.82), gender difference is another factor that affects Asian students' academic achievement. Therefore, research question 9 examined the mean differences between the two gender groups and whether differences existed in cognitive, socio-cultural factors





between the two gender groups and if the differences contributed to differences in academic achievement across genders.

The findings of research question 9 revealed that female students' English self-efficacy and English self-concept were higher than male students. Further, in considering the socio-cultural factors, female students' peer positive support and parent positive support were higher than male students. However, regarding fear of failure, findings indicate that male students report more fear of upsetting important others than their female counterparts. One notable finding is that both female students' self-reported English and Chinese achievement were higher than male students.

The findings indicating that female students' self-efficacy and self-concept were higher than male students but male students' fear of upsetting important others (e.g., parents) was higher than female students implies that female students' psychological health is perhaps better than male students. This might be due to Chinese parents having higher expectations for boys than girls. This result may also indicate that boys perceive they have more pressure, which affects their academic achievement in English language and Chinese language. Initial findings would seem to indicate that intervention programs need to be established for male students so that self-efficacy and self-concept may be enhanced and that fear of failure may be effectively reduced. Parent support, peer support and teacher support will also be necessary for male students in



order to enhance their academic performance and strengthen their psychological development.

In a longitudinal study, Wong, Lam and Ho (2001) examined Hong Kong secondary school students' achievement in the public examination (HKCEE) in 1997. Wong, Lam and Ho (2001) found that girls did better than boys in all areas of the school curriculum. There were two possible reasons to explain the result. First, the educational achievement tests were using more open-ended essay-type questions. The performance on essay questions depends on students' writing skills, an area that girls are likely to do better than boys. The other reason was that, the examination-oriented curriculum of the Hong Kong education system expects a high degree of self-discipline and a regular schedule of study. As girls usually have better self-discipline than boys to complete and review schoolwork, to keep a regular schedule of schoolwork, and to seek advice and help from classmates and teachers, they are likely to have higher levels of achievement.

#### *8.4.5. How do Cognitive Factors and Socio-cultural Factors predict Students' Academic Achievement across genders in Multiple Regression Analysis?*

***Research Question 10: Are the relationships between Self-efficacy (in Chinese and English), Self-concept (in Chinese and English), Fear of failure (Fear of experiencing shame and embarrassment, and Fear of upsetting***



*important other), facilitating conditions (Peer support, Parent support and Teacher support) and Hong Kong students' academic achievements (English and Chinese languages) similar for males and females?*

Research question 10 aims to determine how cognitive factors and socio-cultural factors affect students' Chinese achievement and English achievement across the genders. Findings of research question ten sought to establish whether both male students' self-efficacy (Chinese and English) and self-concept (Chinese and English) predicted their Chinese achievement. Only Chinese self-efficacy predicted female students' achievement in Chinese but both English and Chinese self-concept predicted female students' achievement in Chinese. In addition, both male students' and female students' English self-efficacy predicted their achievement in English and their English self-concept also predicted their English achievement. Moreover, female students perceived more Peer, and Parent Positive Support and Teacher Support in their Chinese achievement.

The implication of the findings is similar to research question 7, except that female students' Chinese self-efficacy only predicted their Chinese score. Both male and female students' Chinese self-efficacy predicted their Chinese achievement due to the domain specificity of the self-efficacy. Male students' English self-efficacy, however, negatively predicted their Chinese achievement.



English Self-concept is a significant predictor of Hong Kong students' academic achievement in both English and Chinese languages, and it applies to both males and female students. Students' English self-concept had a stronger predicting power than Chinese self-concept.

### ***Summary***

As revealed in the findings of research questions One to Eight, the best predictor of students' success in English language and Chinese language at school is English self-concept across the genders. English self-concept plays a dominant role in student's academic achievement. Educators and parents should take special note in students' self-concept development. Fostering students' English self-concept may bring about an added benefit of enhancing their self-concept in Chinese and other subjects, and enhance achievement in all subjects as well. Parent Positive Support is also a crucial factor in determining students' academic achievement.

#### ***8.4.6. Cultural Influence on Hong Kong Students' Language Learning and Motivation Beliefs***

Language is part of culture and helps to define a person's cultural identity and culture is often reflected in the argument about language in education policies (Tsui & Tollefson, 2007). As such, culture plays a significant role in deciding students' learning outcomes.



#### *8.4.7. Cultural Heritage and Hong Kong Students' Academic Achievement*

Culturally, Hong Kong society strives for academic excellence. As students grow up in a society where Confucian heritage and collectivist cultures prevail, they are expected to work hard in school to meet parental and social expectations (Chong, 2007). Hong Kong students at large are willing to stick to their parents' wishes and advice, and conform to fulfilling their parents' academic expectations (Chen & Lan, 1988). Therefore, doing well in exams and school assessments is generally a high priority for most students (Lau, 1997). In this context the salience of parental influence as one of the most dominant factors in students' academic achievement in comparison to teacher and peer influence is understandable. However, teacher support was also found to be a significant predictor in the present study as well.

#### *8.4.8. Gender Difference in Hong Kong Students' Academic Achievement*

Oxford (1993b) stated that girls more often than boys tend to use conscious language strategies. Another study also reported that girls more often than boys use language learning strategies such as metacognitive (planning, evaluating, organizing), affective (emotional and motivational strategies) (Ehrman & Oxford, 1995). The present study replicates Oxford's findings. In the t-test analyses, girls had higher scores in English self-efficacy, English self-concept, Peer Positive Support, and Parent Positive Support than boys. On the other hand,



boys feared more upsetting important others (parents) than girls. These gender differences can be attributed to the fact that Chinese parents value boys more and have higher expectation of boys than girls. However, it is interesting to note that girls perceived that they gain more Parent Positive Support than boys.

Female students are more concerned with studying and getting good grades, as evidenced by the fact that girls in general achieve higher grades in high school than boys (Salili, 1995). Female students are also better using language skills than male students (Salili & Lai, 2003). For example, females tend to use language learning strategies more often than males. This has been continually found in empirical studies (Green, 1991; Green and Oxford, 1993; Oxford, 1993a, 1993b; Oxford & Nyikos, 1989; Oxford, Ehrman & Nyikos, 1988; Oxford, Park-Oh, Ito & Sumrall, 1993a, 1993b; Politzer, 1983). Females exhibit better listening skills than males in other languages in one study (Larsen-Freeman & Long, 1991). In the present study, girls' self-efficacy and self-concept are higher than boys; also, they perceived their English score and Chinese score to be higher than boys. In Hong Kong, subject choice is based on the traditional gender lines. In secondary school education, girls have traditionally taken arts-based subjects, and boys take science subjects (Cheung, 1997). Moreover, girls achieve superior grades in languages in public examinations (Hong Kong Examinations and Assessment Authority, 2008). This can explain the reason why girls' English self-efficacy and self-concept are higher than boys in the present study.



#### *8.4.9. Parent Support in Chinese Culture*

In Confucian heritage and collectivist cultures, students are expected to work hard to meet parental and social expectations (Chong, 2007). Research studies in the United States and Chinese societies (Chao & Sue, 1996; Chen & Uttal, 1988; Crouter, MacDermid, McHale & Perry-Jenkins, 1990; Schneider & Lee, 1990; Siu, 1994; Yao, 1985) have all provided evidence in numerous ways in which parents support their children's education, including providing costly intellectual resources and cognitive stimulation (e.g., computers, books), monitoring and structuring their children's schedule in academic activities, supervising their homework completion, supporting children's schoolwork, and spending time discussing academic-related matters in Chinese cultural setting. In turn, children who experience higher levels of parental support are better behaved and more motivated to learn, devoting more time to schoolwork, and faring better in school than children who receive less parental support (Schneider & Lee, 1990). This effect has been also demonstrated in this study.

#### *8.4.10. Teacher Support in Chinese Culture*

Stevenson and Lee (1990) found that in most of the Asian societies (i.e., Japan and Taiwan), teachers were actually perceived by mothers to be the most important source of support for their children's achievement. Hence, Teacher Support is related to parent's expectations. Additionally, the teachers' role is



distinguished in Chinese culture, as teachers are perceived to be the major channel to transmit wisdom, and this requires that teachers serve as a moral example as well as guide for students' intellectual development. The Chinese old saying: Once a teacher, for life a father-figure (一日為師，終生為父。) reflects a widely-accepted role played by teachers. Teachers' position is deemed as high as fathers, that means teachers are highly respected in Chinese culture. In the context of the present study, it is important to note that Teacher Positive Support was a significant predictor of students' academic achievement.

#### *8.4.11. Fear of Failure in Chinese Culture*

As mentioned earlier in the literature review (p. 20-21) that students are obliged to fulfill their parents' expectations in academic achievement may be reflected in fear of failure. Because all of the findings for fear of failure in the present study are non-significant, it seems that fear of failure is not a significant predictor of students' achievement. However, fear of failure as evidenced by the present research findings show a significant difference across genders, boys tend to fear upsetting important others more than girls (research question 9). Those parents have higher expectations of sons than daughters in Chinese culture may account for this difference.





### 8.5. Academic Achievement Model of Asian Students

The motivational beliefs of Asian students' language learning and achievement are expressed in self-concept and self-efficacy, especially English self-concept. Five significant predictors for Chinese language achievement were self-efficacy in Chinese and English, self-concept in Chinese and English, and positive parental influences. English self-efficacy was a negative predictor to student's Chinese language achievement. Two predictors namely, English self-efficacy and English self-concept were significant in predicting English language achievement. English self-concept was the most significant predictor in Asian students' language learning in both Chinese and English language, and English self-concept was an important predictor of achievement in both languages. Gender differences were found in the present study. The importance of Teacher Support and Parent Support in the formation of students' motivational beliefs of their language learning was also demonstrated.



## **CHAPTER NINE**

### **IMPLICATIONS AND RECOMMENDATIONS**

In chapter nine, the implications of this research for language learning motivation in Hong Kong secondary students are considered. The number of participants in this study is relatively small and limited to four Hong Kong secondary schools. The data reveal that self-efficacy and self-concept play an essential role in students' language achievement. The research findings also show English self-concept may have effects on students' learning outcomes in other subjects. Given that English is a foreign language, it appears that if students are good in English, they might have language talent and as a consequence their Chinese language may also be good. However, students' Chinese self-concept, while being positively related to Chinese language achievement, does not appear to have an effect on their English language achievement. Policy makers and educators should pay more attention to these cognitive factors affecting students' language learning outcomes.



### **9.1. Implications and Recommendations of the Study- From a Practical and Theoretical Point of View**

The implications of this study are divided into two perspectives, practical and theoretical. From the theoretical point of view, this study expanded Bandura's (1986) Social Cognitive Theory to establish its cross-cultural application and generalizability in a sample of Hong Kong schools. In particular the research has shown that central constructs of Social Cognitive Theory, self-efficacy and self-concept, are not only valid and reliable constructs for the Chinese Hong Kong sample, but that they are also able to predict achievement in English and Chinese language when a variety of other socio-cultural variables are controlled. Socio-cultural variables posited by Social Cognitive Theory as influential in students' psychological development, such as the influence of parents and teachers, were also demonstrated to be related to language achievement outcomes.

From the practical point of view, this study provides educators with wider information on how the positive environment (including peer, parent, and teacher support) and motivational beliefs (cognitive factors) (including self-efficacy, self-concept, and fear of failure) predict students' academic achievement. Utilizing Social Cognitive Theory as a framework in the present study, educators can try to improve students' self-beliefs and habits of thinking, academic skills, self-efficacy and self-concept practices, and adjust the school structures to support students' academic achievement. The following are some



suggestions to improve students' self-efficacy, self-concept, and empower parents and teachers to be more supportive to the students.

*9.1.1. Foster Students' Self-efficacy and Self-concept so as to Enhance Student's Academic Achievement*

As research findings (research question 6) of the present study revealed that teacher support predicts students' language achievement, it is vital to enhance students' self-efficacy and self-concept through teachers.

*9.1.1.1. Teachers' Role in Enhancing Students' Self-efficacy*

In the school environment, teachers are required to provide a safe, organized environment that fosters students' academic achievement because a safe, organized environment encourages students' engagement, and self-direction in their learning. On the other hand, classroom management must be based on warm and supportive teacher–student relationships which set the foundation for creating a safe and flexible environment (Pianta, 1999). In such environments, students are more willing to take risks, become engaged in classroom activities, and accept challenges (Birch & Ladd, 1997). Students' self-efficacy will be increased under this learning conducive atmosphere. Specifically, it is of utmost importance for teachers to build up academic self-efficacy in middle grade language students by integrating social, emotional, and academic learning;



monitoring students' self-efficacy; modeling self-efficacy within academic learning; providing effective feedback; and facilitating self-evaluation with goal setting (Mctigue & Liew, 2011).

#### *9.1.1.2. Teachers' Role to Enhance Students' Self-concept*

Educators play a significant role in enhancing students' academic self-concept. It is thus essential for teachers to encourage students' positive self-concept in their normal classroom practices (Marsh & Craven, 2006), devise learning strategies to enhance students' self-concept, offer beneficial responses and praise, give ample support to encourage students to make appropriate attributions for success and failure, and give reinforcement for positive self-talk (Craven et al., 2003) to the students. Before teachers feel competent to help students to build up their self-efficacy and self-concept, teacher training should be given so that teachers' skills and techniques could be equipped in several areas, such as emotional support to the students (Guay et al., 2003).

#### *9.1.2. Empower Parents to be More Supportive for Their Children's Academic Achievement*

Positive parental support promotes higher grades, general academic attainment, cognitive engagement, and academic persistence among children, early adolescents, and late adolescents as several research studies show (Bell, Allen,



Hauser & O'Conner, 1996; Cutrona, Cole, Colangelo, Assouline & Russell, 1994; Finn & Rock, 1997; Hoffman & Weiss, 1987; Moss & St.-Laurent, 2001; Peng, 1994). It is posited that parental involvement in school activities and parent-teacher interactions, helping the child with homework and other school-related activities, control and support of the child's academic progress, imparting of educational values to the child, and responding to his or her school grades (Gonzalez-DeHass, Willems, & Doan-Holbein, 2005) will help to enhance school achievement and in students' language learning. Other studies also found that, parents' aspiration and expectation of children's academic accomplishments had the strongest positive relationship with academic achievement (Levpušćek & Zupancić, 2009).

#### *9.1.3. Different Kinds of Parental Support in Chinese Culture*

Parents are encouraged to provide specific kinds of support, which would be most beneficial to their children's language education. For instance, parents should spend quality time with their children discussing their academic needs and in particular, their language needs. Furthermore, good communication is required for sharing the expectations between parents and children (Au & Harackiewicz, 1986; Stevenson & Lee, 1990). Stevenson and Lee (1990) stated that parental involvement in both the home (e.g., monitoring their homework completion and showing interest in their learning), and school (e.g., attending



parent–teacher conferences) is essential to Chinese children’s overcoming academic difficulties in language learning.

#### *9.1.3.1. School’s Role in Enhancing Parental Support*

For the role of schools, when school administrators implement prevention and intervention programs to facilitate students’ accomplishment of academic achievement, they should be concerned about providing support and resources to assist parents’ participation in their children’s education (Chen, 2008). The principals should also consider educating the parents that adolescents’ educational processes might be complicated by developmental challenges (Chen, 2008) and hence their language learning development could be hindered.

#### *9.1.3.2. Teachers’ Role in Enhancing Parental Support*

The importance of teachers in language teaching and learning is beyond doubt. It is therefore, essential for them to understand adolescents’ psychological development related to educational needs (in language learning) so that they can assist parent’s to better work with the children by providing an appropriate amount of support (Chen, 2008). Home-school cooperation is a good practice in Hong Kong schools. The following message is downloaded from one Hong Kong school website: The school values home-school cooperation and there are several communication channels between the school and parents. 1) The Parent-



Teacher Association acts as a good platform for home-school co-operation; 2) Members of the Parent-Teacher Association are keen and proactive to support student development, especially in their academic achievement.

*9.1.4. Empower School and Teachers to be More Supportive for their Children's Academic Achievement*

*9.1.4.1. The Role of Schools to Support Children's Academic Achievement*

The school plays an important role in helping or inhibiting successful adolescent development (Cartland et al., 2003; Roeser, Midgley & Urdan, 1996; Schaps & Solomon, 2003). Schools should help students with prospect to develop their intellectual capability, to experience a sense of competence and belonging, and to interact with supportive, non-parental adults, and all significant others related to the psychosocial behavior so as to reinforce students' academic achievement in terms of language learning.

*9.1.4.2. The Role of Teacher to Support Students' Academic Achievement*

Teacher's academic support to students includes that students' perceive the teacher cares about their learning, tries to help them learn, and wants them to do their best (Patrick et al., 2007). When students experience support from their





teachers, they are more likely to engage in their academic work and are likely to have high achievement (Goodnow, 1993; Wentzel, 1997). Students are concerned about how teachers perceive them, especially in Chinese culture. Lee, Yin & Zhang's (2000) indicated that moderate to high correlations between teacher involvement and support and students' involvement and collaboration means a potentially positive relationship between them, can be made use of to boost students' academic achievement.

Some recent research studies indicated that the classroom environment could be improved through renewing the modes of teacher involvement and support. It is important to provide the students with motivating tasks that involve variety, diversity and meaningful reasons for task competition in language learning class. For instance, school should provide students with activity choices and autonomy support for planning and applying appropriate strategies in language learning. In the classroom teaching, teachers should give positive feedback to develop students' competence and task mastery orientation in language learning (Braine, 2003; Lau & Lee, 2008; Schuh, 2004; Young, 2005 cited at Lee, Yin & Zhang, 2009).

In teacher-student relationships, it is necessary to reinforce social connections between teachers and students in learning, and focus on the individual needs of students and the attributes of complex classroom environments that are most likely to affect learning. (Braine, 2003; Lau & Lee, 2008; Schuh, 2004; Young, 2005 cited at Lee, Yin & Zhang, 2009).



#### *9.1.5. The Role of Fear of Failure in student's Academic Achievement*

Fear of failure did not predict student's academic achievement significantly as the present study findings showed. The support from teachers and parents are more important to student's learning and achievement. Thus, it is essential to encourage and enhance teachers' and parents' positive support to students' academic achievement. But the role of fear of failure is worth investigating in further study.

### **9.2. Limitations of the Study**

The sample size (1,092 students from 4 secondary schools) is not large enough to allow far-reaching generalization of the findings to schools in Hong Kong. The findings of the present study do not represent the whole Hong Kong population.

The present study utilized self-reported achievement scores for English and Chinese. This is a limitation because the self-reported exam scores may not be an ideal reflection of the actual achievement scores. Nevertheless, this problem is inevitable in a school research setting. The school authorities did not permit the researcher to access actual school achievement scores.



A further limitation might be that all the measures used are self-reported, which may inflate the correlations between variables. Finally, the research used schools that were a mix of English Medium of Instruction and Chinese Medium of Instruction and three bands. It would be appropriate to examine effects by language of instruction, but a limited sample did not allow this.

### **9.3. Further Development**

In the light of the findings as well as limitations of the present study, it is proposed that future research might be conducted in the following directions.

Larger samples that involve more schools and students should be collected to conduct research so as to enhance the generalizability of the subsequent findings. It would be worth examining the motivation beliefs from the teachers' and parents' perspective of how socio-cultural factors (i.e., parental support, peer, peer support, and teacher support) cognitive factors (i.e., self-efficacy, self-concept and fear of failure) predict students' learning outcomes. This would provide a more comprehensive set of data for the researchers and policy-makers to view in order to provide a better picture of the relationship of Hong Kong students' learning motivation and achievement.

This study may provide a foundation for further studies of better strategies to help Hong Kong Chinese students realize their potential and perhaps to a



certain extent for their counterparts in Mainland China who share the same Chinese collective cultural heritage. The regression model may provide a theory-driven evidence-based model for educators with a view to strengthening Hong Kong students' academic motivation and academic self-efficacy and self-concept, especially in the area of the language learning.



#### **9.4. Conclusions**

The present study encompassed a broad range of students' motivational beliefs for examining how socio-cultural factors (i.e., parental support, peer support, and teacher support) and cognitive factors (i.e., self-efficacy, self-concept and fear of failure) predict secondary students' learning outcomes in English and Chinese language across gender. 1,092 students from four secondary schools with ability bands of 1-3 respectively participated. The relative strength of the socio-cultural factors and cognitive factors in predicting the educational outcomes (in English and Chinese language) were explored.

The major findings and their implications are noteworthy. In the overall findings, self-efficacy was domain specific. English self-concept strongly and positively predicted English achievement and Chinese achievement. Chinese self-concept only predicted Chinese achievement. Furthermore, fear of failure did not predict students' academic achievement.

In the facilitating conditions, students' positive parent support and teacher support were almost equivalent in predicting Chinese Language achievement, but parent positive support was a stronger predictor of English achievement than teacher support. The parent positive support had a small significant positive effect on students' Chinese achievement, while English self-concept had a stronger effect on students' Chinese achievement and English



achievement. Self-efficacy and self-concept in both English and Chinese languages predicted Chinese achievement, but only English self-efficacy and English self-concept predicted English achievement.

There were noticeable differences in gender. Female students' English self-efficacy and English self-concept were higher than male students, and their perceived peer positive support and parents' positive support higher than male students. In contrast, male students' fear of upsetting important other was higher than girls. In the present study, student's language self-efficacy and self-concept together with parents' positive support and teacher positive support were essential to enhance students' academic achievement.

Last but not the least, the present study provides useful insights into the academic motivation of Hong Kong secondary school students. In a broader sense, it is also a noteworthy research on academic motivation in a non-Western school context. The findings and insights should be useful to educators, education policy-makers, parents and researchers.



## References

- Adamson, B., & Lai, W. A. (1997). Language and the curriculum in Hong Kong: Dilemmas of triglossia. *Comparative Education*, 33(2), 233-246.
- Anderson, J., & Gerbing, D. W. (1984). The effects of sampling error on convergence, improper solutions and goodness-of-fit indices for maximum likelihood confirmatory factor analysis. *Psychometrika*, 49, 155-173.
- Atkinson, J. W. (1957). Motivational determinants of risk taking behavior. *Psychological Review*, 64, 359-372.
- Atkinson, J. W. (1964). *An Introduction to motivation*. New York: Van Nostrand Reinhold.
- Atkinson, J. W. (1966). Motivational determinants of risk-taking behavior. In J. W. Atkinson & N.T. Feather (Eds.), *A theory of achievement motivation* (pp. 11-30). New York: John Wiley and Sons.
- Au, T. K., & Harackiewicz, J. M. (1986). The effect of perceived parental expectations on Chinese children's mathematics performance. *Merrill-Palmer Quarterly*, 32(4), 383-392.
- AuYueng, L.W. (1987). An account of the development of Chinese language education in Hong Kong. In B. X. Chen (Ed.), *An account of the development of Chinese language in modern China* (pp. 316-418). Kunming: Yunnan Education Press. (in Chinese).
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, 84, 191-215.
- Bandura, A. (1982). Self-efficacy mechanism in human agency. *American Psychologist*, 37(2), 122-147.
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice-Hall.
- Bandura, A. (1994). Self-efficacy. In V. S. Ramachaudran (Ed.), *Encyclopedia of human behavior* (Vol. 4, pp. 71-81). New York: Academic Press. (Reprinted in *Encyclopedia of mental health*, by H. Friedman Ed., 1998, San Diego: Academic Press)
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York: Freeman.
- Bandura, A. (2000). Exercise of human agency through collective efficacy. *Current Directions in Psychological Science*, 9(3), 75-78.
- Bandura, A. (2001). Social cognitive theory: An agentic perspective. *Annual Review Psychology*, 52, 1-26.
- Bateman, H. V. (2002). Sense of community in the school. In A. Fisher, C. Sonn, & B. Bishop (Eds.), *Psychological sense of community: Research, applications, and implications* (pp. 161-179). New York: Kluwer Academic/Plenum Publishers.
- Battistich, V., Solomon, D., Kim, D., Watson, M., & Schaps, E. (1995). Schools as communities, poverty levels of student populations, and students' attitudes, motives, and performance: A multilevel analysis. *American Educational Research Journal*, 32, 627-658.
- Bell, K. L., Allen, J. P., Hauser, S. T., & O'Conner, T. G. (1996). Family factors and young adult transitions: Educational attainment and occupational prestige. In J. A. Graber, J. Brooks-Gunn, & A. C. Petersen (Eds.),



- Transitions through adolescence: Interpersonal domains and context* (pp. 345-366). Hillsdale, NJ: Erlbaum.
- Bentler, P. M. (1989). *EQS structural equations program manual*. Los Angeles: BMDP Statistical Software.
- Bentler, P.M. (1990). Comparative fit indexes in structural models. *Psychological Bulletin*, 107, 238-246.
- Bentler, P. M., & Bonett, D. G. (1980). Significance tests and goodness of-fit in the analysis of covariance structures. *Psychological Bulletin*, 88(3), 588-600.
- Berndt, T. J. (1999). Friends' influence on children's adjustment to school. Relationships as developmental contexts. In C. W. Andrew & L. Brett (Eds.), *Relationships as developmental contexts. The Minnesota symposia on child psychology* (Vol. 30, pp. 85-108). Mahwah, NJ: Lawrence Erlbaum.
- Berndt, T. J., Laychak, A. E., & Park, K. (1990). Friends' influence on adolescents' academic achievement motivation: An experimental study. *Journal of Educational Psychology*, 82(4), 664-670.
- Berndt, T. J., & Savin-Williams, R. C. (1993). Peer relations and friendships. In P. H. Tolan & B. J. Cohler (Eds.), *Handbook of clinical research and practice with adolescents* (pp. 203-219). New York: Wiley.
- Berndt, T. J., Cheung, P. C., Lau, S., Hau, K. T., & Lew, W. J. F. (1993). Perceptions of parenting in Mainland China, Taiwan, and Hong Kong: Sex differences and societal differences. *Developmental Psychology*, 29(1), 156-164.
- Biggs, J. B. (1992). *Learning and schooling in ethnic Chinese: An Asian solution to a western problem*. In S. Lau, (Eds.), *Growing up the Chinese way: Chinese child and adolescent development*. (pp. 147-168). Hong Kong: The Chinese University Press.
- Biggs, J. B. (1996). Western misconceptions of the Confucian-heritage learning culture. In D. A. Watkins & J. B. Biggs (Eds.), *The Chinese learner: Cultural, psychological and contextual influences* (pp. 45-67). Hong Kong and Melbourne: Comparative Education Research Centre and the Australian Council for Educational Research.
- Biggs, J.B. and Moore, P.J. (1993). *The Process of Learning*. Sydney: Prentice-Hall Australia.
- Biggs, J., & Watkins, D. (1996). The Chinese learner in retrospect. In D. A. Watkins & J. B. Biggs (Eds.), *The Chinese learner: Cultural, psychological and contextual influences* (pp. 269-285). Hong Kong and Melbourne: Comparative Education Research Centre and the Australian Council for Educational Research.
- Birch, S. H., & Ladd, G. W. (1997). The teacher-child relationship and children's early school adjustment. *Journal of School Psychology*, 35, 61-79.
- Bong, M., & Skaalvik, E. M. (2003). Academic self-concept and self-efficacy: How different are they really? *Education Psychology Review*, 15(1), 1-40.
- Bond, M. H. (1991). Chinese values and health: A cross-cultural examination. *Psychology & Health*, 5, 137-152.
- Bond, M. H. (Ed.) (1996). *The handbook of Chinese psychology*. Hong Kong: Oxford University Press.





- Bong, M. H. (2008). Effects of parent-child relationships and classroom goal structures on motivation, help seeking avoidance, and cheating. *The Journal of Experimental Education*, 76(2), 191-217.
- Bond, M. H., & Hwang, K. K. (1986). The social psychology of Chinese people. In M. H. Bond (Ed.), *The psychology of the Chinese people* (pp. 213-266). Hong Kong: Oxford University Press.
- Bouffard-Bouchard, T., Parent, S., & Larivee, S. (1991). Influence of self-efficacy on self-regulation and performance among junior and senior high-school age students. *International Journal of Behavioral Development*, 14(2) 153-164.
- Brace, N., Kemp, R., & Srelgar, R. (2006). *Multiple regression: An introduction to multiple regression performing a multiple regression on SPSS*. Retrieved from: <http://www.palgrave.com/pdfs/0333734718.pdf>
- Braine, G. (2003). From a teacher-centered to a student-centered approach: A study of peer feedback in Hong Kong writing classes. *Journal of Asian Pacific Communication*, 13(2), 269-288.
- Browne, M. W., & Cudeck, R. (1993). Alternative ways of assessing model fit. In K. A. Bollen & J. S. Long (Eds.), *Testing structural equation models* (pp. 136-162). Newbury Park, CA: Sage.
- Buhs, E. S., & Ladd, G.W. (2001). Peer rejection as an antecedent of young children's school adjustment: An examination of mediating processes. *Developmental Psychology*, 37(4), 550-560.
- Bussing, A., Ostermann, T., & Matthiessen, P. F. (2005). Role of religion and spirituality in medical patients: Confirmatory results with the SpREUK questionnaire. *Health and Quality of Life Outcomes*, 3, 1-10.
- Byrne, B. M. (1988). The Self- Description Questionnaire III: Testing for equivalent factorial validity across ability. *Educational and Psychological Measurement*, 48, 397-406.
- Byrne, B. M. (1994). *Structural equation modeling with EQS and EQS/Windows: Basic concepts, applications, and programming*. Thousand Oaks, CA: Sage.
- Caraway, K., Tucker, C. M., Reinke, W. M., & Hall, C. (2003). Self-efficacy, goal orientation, and fear of failure as predictors of school engagement in high school students, *Psychology in the Schools*, 40(4), 417-427.
- Carless, D. (2011). *From testing to productive student learning: Implementing formative assessment in Confucian-heritage settings*. New York : Routledge.
- Cartland, J., Ruch-Ross, H. S., & Henry, D. B. (2003). Feeling at home in one's school: A first look at new measure. *Adolescence*, 38, 305-319.
- Carter, R. S., & Wojtkiewicz, R. A. (2000). Parental involvement with adolescents' education: Do daughters or sons get more help? *Adolescence*, 35(137), 29-44.
- Census and Statistics Department. (2002). *2001 population census: Main report - volume 1*. Hong Kong: Census and Statistics Department.
- Census and Statistics Department. (2008). *2006 population by-census (Thematic report: Youths)*. Hong Kong: Census and Statistics Department.
- Charlton, T. (1998). Experiencing school effectiveness through using peer support strategies with pupils and teachers. *Support for Learning*, 13, 50-53.
- Chao, R. K., & Sue, S. (1996). Chinese parental influence and their children's school success: A paradox in the literature on parenting styles. In S. Lau



- (Ed.), *Growing up the Chinese way: Chinese child and adolescent development* (pp. 93-120). Hong Kong: The Chinese University Hong Kong Press.
- Chan, E. (2002). Language and identity in post-colonial Hong Kong. *British Journal of Sociology of Education*, 23(2), 271-285.
- Chan, S. (1999). The Chinese learner: A question of style. *Education and Training*, 41, (6-7), 294-304.
- Chan, Y-Y. G., & Watkins, D. (1994). Classroom environment and approaches to learning: an investigation of the actual and preferred perception of Hong Kong secondary school students. *Instruction Science*, 22, 233-240.
- Chang, L., McBride-Chang, C., Stewart, S., & Au, E. (2003). Life satisfaction, self-concept, and family relations in Chinese adolescents and children. *International Journal of Behavioural Development*, 27(2), 182-189.
- Chen, C., & Uttal, D. H. (1988). Cultural values, parents' beliefs, and children's achievement in the United States and China. *Human Development*, 3, 351-358.
- Chen, H., & Lan, W. (1988). Adolescents' perceptions of their parents' academic expectations: Comparison of American, Chinese-American, and East Asian high school students. *Child Development*, 66, 1215-1234.
- Chen, J. J-L. (2005). Relation of academic support from parents, teachers, and peers to Hong Kong adolescents' academic achievement: The mediating role of academic engagement. *Genetic, Social, and General Psychology Monographs*, 131, 77-127.
- Chen, L. F. (1987). *The Confucian Way*. New York: Kegan Paul, Associate Book.
- Cheng, C. H-K. (1997). *The self-conceptions of Hong Kong adolescents: Conceptual, measurement, and process perspectives*. (Unpublished doctoral dissertation). The University of Hong Kong: Hong Kong.
- Cheng, K. M. (1997). The education system. In G. Postiglione & W. O. Lee (Eds.), *Schooling in Hong Kong: Organization, Teaching and Social Context* (pp. 25-42). Hong Kong: Hong Kong University Press.
- Cheung, G. W., & Rensvold, R. B. (2002). Evaluating goodness-of-fit indexes for testing measurement invariance. *Structural Equation Modeling*, 9(2), 233-255.
- Cheung, P. C., & Lau, S. (1985). Self-esteem: Its relationship to the family and school social environments among Chinese adolescents. *Youth and Society*, 16(4), 438-456.
- Choi, S. Y. (2000). *The occupational attainments of the five major dialect groups in Hong Kong*. Hong Kong: The Chinese University of Hong Kong, Hong Kong Institute of Asia-Pacific Studies.
- Chong, W. H. (2007). The role of personal agency beliefs in academic self-regulation. An Asian perspective. *School Psychology*, 28, 63-76.
- Christenson, S. L., Rounds, T., & Gorney, D. (1992). Family factors and student achievement: An avenue to increase students' success. *School Psychology Quarterly*, 7, 178-206.
- Claes, M. (1998). Adolescents' closeness with parents, siblings, and friends in three countries: Canada, Belgium and Italy. *Journal of Youth and Adolescence*, 27(2), 165-184.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Hillsdale, NJ: Erlbaum.



- Coie, J. D., Terry, R., Lenox, K., Lochman, J., & Hyman, C. (1995). Childhood peer rejection and aggression as predictors of stable patterns of adolescent disorder. *Development and Psychopathology*, 7, 697-713.
- Cokley, K. (2000). An investigation of academic self-concept and its relationship to academic achievement in African American college students. *Journal of Black Psychology*, 26 (2), 148-164.
- Cokley, K., & Patel, N. (2007). A psychometric investigation of the academic self-concept of Asian American college students. *Educational and Psychological Measurement*, 67, 88-99.
- Condly, S. J. (1999). *Motivation to learn and to succeed: A path analysis of the CANE model of cognitive motivation*. (Unpublished Doctoral dissertation). University of Southern California, South California.
- Conroy, D. E. (2011). Progress in the development of a multidimensional measure of fear of failure: The Performance Failure Appraisal Inventory (PFAI). *Anxiety, Stress, and Coping: An International Journal*, 14, 431-452.
- Conroy, D. E., & Elliot, A. (2004). Fear of failure and achievement goals in sport: Addressing the issue of chicken and the egg. *Anxiety, Stress, and Coping*, 17 (3), 271-285.
- Conroy, D. E., Metzler, D. N., & Hofer, S. M. (2003). Factorial invariance and latent mean stability of performance failure appraisals. *Structural Equation Modeling*, 10, 401-422.
- Conroy, D. E., Poczwadowski, A., & Henschen, K. P. (2001). Evaluative criteria and consequences associated with failure and success for elite athletes and performing artists. *Journal of Applied Sport Psychology*, 13, 300-322.
- Conroy, D. E., Willow, J. P., & Metzler, J. N. (2002). Multidimensional fear of failure measurement: The performance failure appraisal inventory. *Journal of Applied Sport Psychology*, 14, 76-90.
- Cook, D., & Halvari, H. (1999). Relations among achievement motives, autonomy, performance in mathematics, and satisfaction of pupils in elementary school. *Psychological Reports*, 84, 983-997.
- Cowie, H., & Hutson, N. (2005). Peer support: A strategy to help bystanders challenge school bullying. *Pastoral Care in Education*, 23, 40-44.
- Cowie, H., & Wallace, P. (2000). *Peer support in action*. London: Sage.
- Craven, R. G., Marsh, H. W., & Burnett, P. C. (2003). Cracking the self-concept enhancement conundrum: A call and blueprint for the next generation of self-concept enhancement research. In H. W. Marsh, R. G. Craven, & D. M. McInerney (Eds.), *International advances in self research* (Vol. 1, pp. 91-126). Greenwich, CT: Information Age.
- Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika*, 16, 297-334.
- Crothers, L. M., Hughes, T. L., & Morine, K. A. (2008). *Theory and cases in school-based consultation: A resource for school psychologist, school counselors, special educators, and other mental health professionals*. New York: Routledge Taylor & Francis Group.
- Crouter, A. C., MacDermid, S. M., McHale, S. M., & Perry-Jenkins, M. (1990). Parental monitoring and perceptions of children's school performance and



- conduct in dual- and single-earner families. *Developmental Psychology*, 26, 649-657.
- Covington, M. V. (1992). Making the grade: A self-worth perspective on motivation and school reform. New York: Cambridge University Press.
- Covington, M. V., & Omelich, C. L. (1988). Achievement dynamics: The interaction of motives, cognitions, and emotions overtime. *Anxiety Research*, 1, 165-183.
- Cummis, J. (1979). Linguistic interdependence and the educational development of bilingual children. *Review of Educational Research*, 49(2), 222-251.
- Cutrona, C. E., Cole, V., Colangelo, N., Assouline, S. G., & Russell, D. W. (1994). Perceived parental social support and academic achievement: An attachment theory perspective. *Journal of Personality and Social Psychology*, 66, 369-378.
- Curriculum Development Institute. (2001). *Learning to learning: Life-long learning and whole-person development*. Hong Kong: Printing Department.
- Dahme, G., Jungnickel, D., & Rathje, H. (1993). Güteeigenschaften der Achievement Motives Scale (AMS) von Gjesme und Nygard (1970) in der deutschen Übersetzung von Götter und Kuhl: Vergleich der Kennwerte norwegischer und deutscher Stichproben [Psychometric properties of a German translation of the achievement motives scale (AMS): Comparison of results from Norwegian and German samples]. *Diagnostica*, 39, 257-270.
- de Bruyn, E. H., Dekovic', M., & Meijnen, G. W. (2003). Parenting, goal orientations, classroom behavior, and school success in early adolescence. *Applied Developmental Psychology*, 24, 393-412.
- Dornbusch, S. M., Ritter, P. L., Leiderman, P. H., Roberts, D. F., & Fraleigh, M. J. (1987). The relation of parenting style to adolescent school performance. *Child Development*, 58, 1244-1257.
- Dornyei, Z. (1990). Conceptualizing motivation in foreign-language learning. *Language Learning*, 40, 45-78.
- Dweck, C. S. (1986). Motivational processes affecting learning. *American Psychologist*, 41, 1040-1048.
- Eaton, M. J., & Dembo, M. H. (1997). Differences in the motivational beliefs of Asian American and non-Asian students. *Journal of Educational Psychology*, 89, 433-40.
- Eccles, J. S. (1987). Gender roles and women's achievement-related decisions. *Psychology of Women Quarterly*, 11, 135-172.
- Eccles, J. S., Jacobs, J. E., & Harold, R. D. (1990). Gender role stereotypes expectancy effects, and parents' socialization of gender differences. *Journal of Social Issues*, 46, 183-201.
- Education Bureau. (2009). *Enriching our language environment, realizing our vision: Fine-tuning of medium of instruction for secondary schools*. Hong Kong: Government Printer.
- Education Commission. (1990). *The curriculum and behavioural problems in schools (Education Commission Report No.4)*. Hong Kong: Government Printer.
- Education Department. (1997). *Medium of instruction: Guidance for secondary schools*. Hong Kong: Government Printer.



- Ehrman, M. E., & Oxford, R.L. (1995). *The Modern Language Journal*, 79(1), 67-89.
- Elliott, A. J., & Church, M. A. (1997). A hierarchical model of approach and avoidance achievement motivation. *Journal of Personality and Social Psychology*, 72(1), 218-232.
- Ekstrom, R.B., Goertz, M.E., Pollack, J.M., & Rock, D.A. (1986). *Who drops out of high school and why? Findings from a national study. Teachers College Record*, 87, 356-373.
- Elliot, A. J., & Sheldon, K. (1997). Avoidance achievement motivation: A personal goals analysis. *Journal of Personality and Social Psychology*, 73, 171-185.
- Elliot, A. J., & Thrash, T. M. (2004). The intergenerational transmission of fear of failure. *Personality and Social Psychology Bulletin*, 30, 957-971.
- Ellis, L. A., Marsh, H. W., & Craven, R. G. (2009). Addressing the challenges faced by early adolescents: A mixed-method evaluation of the benefits of peer support. *American Journal of Community Psychology*, 44, 54-75.
- Entwistle, N. J. (1990). Teaching and the quality of learning in higher education. In N. J. Entwistle (ed.), *Handbook of educational Ideas and Practices*. London: Routledge.
- Epstein, J. L. (1983). The influence of friends on achievement and affective outcomes. In J. L. Epstein & N. Karweit (Eds.), *Friends in school: Patterns of selection and influence in secondary schools* (pp. 177-200). New York: Academic Press.
- Fan, W., Lindt, S. F., Arroyo-Giner, C. A., & Wolters, C. A. (2009). The role of social relationships in promoting student academic self-efficacy and MIMIC approaches to assess factorial mean invariance. *International Journal of Applied Educational Studies*, 5(1), 34-53.
- Fass, M. E., & Tuban, J. G. (2002). The influence of parental and peer attachment on college students' academic achievement. *Psychology in the Schools*, 39(5), 561-573.
- Feldman, S. S., & Rosenthal, D. A. (1991). Age expectations of behavioral autonomy in Hong Kong, Australian, and American youths: The influence of family variables and adolescent values. *International Journal of Psychology*, 16, 1-123.
- Felner, R. D., Ginter, M., & Primavera, J. (1982). Primary prevention during school transitions: Social support and environmental structure. *American Journal of Community Psychology*, 10, 277-290.
- Festinger, L. (1954). A theory of social comparison processes. *Human Relations*, 1(7), 117-140.
- Finn, J. D. (1989). Withdrawing from school. *Review of Educational Research*, 59, 117-142.
- Finn, J. D., & Rock, D. A. (1997). Academic success among students at risk for school failure. *Journal of Applied Psychology*, 82, 221-234.
- Fuligni, A. J. (2001). Family obligation and the academic motivation of adolescents from Asian and Latin American, and European backgrounds. In A. Fuligni (Ed.), *Family obligation and assistance during adolescence: Contextual variations and developmental implications* (New Directions in Child and Adolescent Development, 94, (pp. 61-76). San Francisco: Jossey-Bass.





- Furman, W., & Buhrmester, D. (1992). Age and sex differences in perceptions of networks of personal relationships. *Child Development*, 63, 103–115.
- Furrer, C., & Skinner, E. (2003). Sense of relatedness as a factor in children's academic engagement and performance. *Journal of Educational Psychology*, 95, 148–162.
- Garson, D. (2008). *Structural equation modeling*. Retrieved from <http://faculty.chass.ncsu.edu/garson/pA765/structure>.
- Gibbon, J. (1989). The issue of the language of instruction in the lower forms of Hong Kong secondary schools. In C. Kennedy (Ed.), *Language planning and English language teaching* (pp. 124–134). New York: Prentice Hall.
- Gjesme, T. (1982). Psychological goal distance: The lost dimension in achievement motivation research. In W. Hacker, W. Volpert, & M. von Cranach (Eds.), *Cognitive and motivational aspects of action* (pp. 86–98). Amsterdam, The Netherlands: North-Holland.
- Gonzalez-DeHass, A., Willems, P. P., & Doan Holbein, M. F. (2005). Examining the relationship between parental involvement and student motivation. *Educational Psychology Review*, 17, 99–123.
- Goodenow, C. (1993). Classroom belonging among early adolescent students: Relationships to motivation and achievement. *Journal of Early Adolescence*, 13, 21–43.
- Goodnow, C. (1993). Classroom belonging among early adolescent students: Relationships to motivation and achievement. *Journal of Early Adolescence*, 13, 21–43.
- Gordon, D. (1997). *The relationships among academic self-concept, academic achievement, and persistence with self-attribution, study habits, and perceived school environment*. Retrieved from <http://docs.lib.purdue.edu/dissertations/AAI9818955>.
- Gottfried, A. E., Fleming, J. S., & Gottfried, A. W. (1994). Role of parental motivational practices in children's academic intrinsic motivation and achievement. *Journal of Educational Psychology*, 86, 104–113.
- Green, J. M. (1991). *Language learning strategies of Puerto Rican university students*. Paper presented at the annual meeting of Puerto Rico Teachers of English to Speakers of Other Languages, San Juan, PR.
- Green, J. M., & Oxford, R. L. (1993). *Learning strategies: Patterns of use by gender and proficiency*. Paper presented at the annual meeting of Teachers of English to Speakers of Other Languages, Atlanta.
- Grolnick, W. S., & Slowiaczek, M. L. (1994). Parents' involvement in children's schooling: A multidimensional conceptualization and motivational model. *Child Development*, 64, 237–252.
- Guay, F., Marsh, H. W., & Boivin, M. (2003). Academic self-concept and academic achievement: Developmental perspectives on their causal ordering. *Journal of Educational Psychology*, 95, 124–136.
- Hamamura, T. (2011). Are cultures becoming individualistic? A cross-temporal comparison of individualism-collectivism in the United States and Japan. *Personality and Social Psychology Review*, 16(1), 3–24.
- Hamamura, T., & Heine, S. J. (2008). Approach and avoidance motivation across cultures. In A. J. Elliot (Ed.), *Handbook of approach and avoidance motivation* (pp. 557–570). New York, NY: Psychology Press.



- Harmon, M., Smith, T.A., Martin, M.O., Kelly, D.L., Beaton, A.E., Mullis, I.V.S., et al. (1997). *Performance assessment in IEA's third international mathematics and science study (TIMSS)*. Chestnut Hill, MA: TIMSS International Study Center, Boston College.
- Hattie, J. (1992). *Self-concept*. Hillsdale, NJ: Erlbaum.
- Hidi, S., & Harackiewicz, J. M. (2000). Motivating the academically unmotivated: A critical issue for the 21st century. *Review of Educational Research*, 70(2), 151-179.
- Hinkle, D. E., Wiersma, W., & Jurs, S. G. (2003). *Applied statistics for the behavioral sciences*. Boston, MA: Houghton Mifflin Company.
- Ho, D. Y. F. (1994). Filial piety, authoritarian moralism, and cognitive conservatism in Chinese society. *Genetic, Social and General Psychology Monograph*, 129, 349-365.
- Ho, I. T. (2001). Are Chinese teachers authoritarian? In D. A. Watkins & J. B. Biggs (Eds.), *Teaching the Chinese learner: Psychological and pedagogical perspectives* (pp. 99-114). Hong Kong, Melbourne: Comparative Education Research Centre and the Australian Council for Educational Research.
- Ho, W.C. (2009). Gender differences in instrumental learning among secondary school students in Hong Kong. *Gender and Education*, 21(4), 405-422.
- Ho, Y. F., Peng, S. Q., & Chan, S. F. (2001). Authority and learning in Confucian-heritage education: a relational methodological analysis. In C.Y. Chiu, F. Salili, & Y. Y. Hong (Eds.), *Multiple competencies and self-regulated learning: Implications for multicultural education*. U.S.A.: Information Age Publishing.
- Hoffman, J., & Weiss, B. (1987). Family dynamics and presenting problems in college students. *Journal of Counseling Psychology*, 34, 157-163.
- Hofstede, G. (1980). *Culture's Consequences: International Differences in Work-Related Values*. Beverly Hills, CA: Sage Publications.
- Hofstede, G. (1991). *Cultures and organizations: software of the mind*. Berkshire, UK: McGraw-Hills.
- Holloway, S. D. (1988). Concepts of ability and effort in Japan and the United States. *Review of Educational Research*, 58, 327-345.
- Hoover-Dempsey, K. V., & Sandler, H. M. (1995). Parental involvement in children's education: Why does it make a difference? *Teachers College Record*, 95, 310-331.
- Hong Kong Examinations and Assessment Authority. (2008). *Examination report: Examination statistics – 2007 HKCEE performance of candidates in each subject for day school first attempters*. Retrieved from: [http://eant01.hkeaa.edu.hk/hkea/redirector.asp?p\\_direction=body&p\\_clickurl=exam%5Freports%2Easp%3Fp%5Fexam%3DHKCEE](http://eant01.hkeaa.edu.hk/hkea/redirector.asp?p_direction=body&p_clickurl=exam%5Freports%2Easp%3Fp%5Fexam%3DHKCEE)
- Hong Kong Government. (1990). *Education Commission Report No. 4*. Hong Kong: Hong Kong Government Printer.
- Hong Kong Government. (1997). *Medium of Instruction Guidance for Secondary School*. Hong Kong: HKSAR Government Printer.
- Hughes, J., & Kwok, O.M., (2007). Influence of student-teacher and parent-teacher relationships on lower achieving readers' engagement and achievement in the primary grades. *Journal of Educational Psychology*, 99(1), 39-51.



- Hughes, J. N., Luo, W., Kwok, O., & Loyd, L. K. (2008). Teacher-student support, effortful engagement, and achievement: A 3-year longitudinal study. *Journal of Educational Psychology*, 100, 1-14.
- Ireson, J., & Hallam, S. (2005). Pupils' liking for school: Ability grouping, self-concept and perceptions of teaching. *British Journal of Educational Psychology*, 75, 297-311.
- Jang, Y. (2001). An analysis of the children's perceived competence and the related variables. *Journal of Korean Home Economics*, 39, 101-114.
- Jelenc, L. (2007). Testing validity and reliability of classical and contemporary school of strategic management. *International Journal of Education and Information Technologies*, 3(1), 172-176.
- Johnson, R. K. (1997). The Hong Kong education system: Late immersion under stress. In R.K. Johnson & M. Swain (Eds.), *Immersion education: International perspectives* (pp.167-170). Cambridge University Press.
- Jöreskog, K. G., & Sörbom, D. (1993). *LISREL 8: Structural Equation Modeling with SIMPLIS Command Language*. Chicago: Scientific Software International.
- Jöreskog, K. G., & Sörbom, D. (2006). *LISREL 8.80 For windows, scientific software international*. IL: Lincolnwood.
- Juhasz, A. M., & Yue, M. (1989). *Significant others of U.S. white, black and Chinese early adolescents* Price. ED 340962.
- Kan, V., & Adamson, B. (2010). Language policies for Hong Kong schools since 1997. *London Review of Education*, 8(2), 167-176.
- Kataoka, S., & Fu, K. H. (1996). Choice to have a name in Cantonese in Hong Kong. Paper presented at the International Conference on Language Rights. The Hong Kong Polytechnic University, Hong Kong.
- Kim, U. (1995). Individual and collectivism: Psychological, cultural and ecological analysis. In *NIAS, Report no.18* (pp.1-76). Copenhagen: Nordic Institute of Asian Studies.
- Kim, U. (1997). Asian collectivism: An indigenous perspective. In H. Kao, & D. Sinha (Eds.), *Asian perspectives on psychology: Cross-cultural research and methodology series*, (Vol. 19, pp. 147-163). New Delhi, India: Sage.
- Kirkbride, P.A., & Tang, S.F.K. (1992). Management development in the Nanyang Chinese societies of Southeast Asia, *Journal of Management Development*, 11(2), 56-66.
- Kluckhohn, K. (1954). Culture and behavior. In G. Lindzey (Ed.), *Handbook of social psychology* (Vol. 2, pp. 921-976). Cambridge, MA: Addison-Wesley.
- Kuhl, J. (1984). Volitional aspects of achievement motivation and learned helplessness: Toward a comprehensive theory of action control. In B. A. Maher (Ed.), *Progress in experimental personality research* (Vol. 13, pp. 99-170). New York: Academic Press.
- Kwo, O.W.Y. (1992). The teaching of Putonghua in Hong Kong schools: language education in a changing economic and political context. In G.A. Postiglione & E J.Y.M. Leung (Eds), *Education and Society in Hong Kong: toward one country and two systems* (pp. 203-213). Hong Kong: Hong Kong University Press.





- Kwok, D. C., & Lytton, H. (1996). Perceptions of mathematics ability versus actual mathematics performance: Canadian and Hong Kong Chinese children. *British Journal of Educational Psychology*, 66, 209-222.
- Lai, M. L. (1999). *The mother tongue education policy after the change of sovereignty: Tensions between government, schools and parents in Hong Kong*. In Selected Paper of the 12<sup>th</sup> World Congress of Applied Linguistics (AILA'99, Tokyo) August 6, CD-ROM Disc 3.
- Lai, M. L. (2001). Hong Kong Students' attitudes towards Cantonese, Putonghua and English after the Change of Sovereignty. *Journal of Multilingual and Multicultural Development*, 22(2), 112-133.
- Lai, M.L. (2005). Language attitudes of the first postcolonial generation in Hong Kong secondary schools. *Language in Society*, 34, 363-388.
- Lam, S. F. (1997). *How the family influences children's academic achievement*. New York: Garland.
- Lambert, W. E. (1992). Challenging established views on social issues: The power and limitations of research. *American Psychologist*, 47, 533-542.
- Lang, J.W.B., & Fries, S. (2006). A revised 10-item version of the Achievement Motives Scale: Psychometric properties in German-speaking samples. *European Journal of Psychological Assessment*, 22, 216-224.
- Larsen-Freeman, D., & Long, M. (1991). *An introduction to second language acquisition research*. London: Longman.
- Lau, K. L., & Lee, J. (2008). Examining Hong Kong students' achievement goals and their relations with students' perceived classroom environment and strategy use. *Educational Psychology*, 28(4), 357-372.
- Lau, S. (Ed.). (1997). *Growing up the Chinese way*. Hong Kong: The Chinese University Press.
- Lazarus, R. S. (1991). *Emotion and adaptation*. New York: Oxford University Press.
- Lee, W.O. (1996). The cultural context for Chinese Learners: Conception of learning in Confucian tradition. In D.A. Watkind & J.B. Biggs, *The Chinese learner: Cultural Psychological and Contextual Influences*. Hong Kong: CERC & ACERC.
- Lee, C.K.J., Lee, L.M.F., & Wong, H.W. (2003). Development of a classroom environment scale in Hong Kong. *Educational Research and Evaluation*, 9, 317-344.
- Lee, J.C.K., Yin, H., & Zhang, Z. (2000). Exploring the influence of the classroom environment on students' motivation and self-regulated learning in Hong Kong. *The Asia-Pacific Education Researcher*, 18(2), 219-232.
- Lempers, J. D., & Clark-Lempers, D. S. (1992). Young, middle, and late adolescents' comparisons of the functional importance of five significant relationships. *Journal of Youth and Adolescence*, 21(1), 53-96.
- Lent, R.W., Brown, S. D., & Larkin, K. C. (1984). Relation of self-efficacy expectations to academic achievement and persistence. *Journal of Counseling Psychology*, 31(3), 356-362.
- Lent, R.W., Brown, S. D., & Larkin, K. C. (1986). Self-efficacy in the prediction of academic performance and perceived career options. *Journal of Counseling Psychology*, 33(3), 265-269.
- Levpušček, M.P. & Zupancić, M. (2009). Math achievement in early adolescence: the role of parental involvement, teachers' behavior, and



- students' motivational beliefs about Math. *Journal of Early Adolescence*, 29(4), 541-570.
- Lord, R., & T'sou, B. K. (1985). *The language bomb*. Hong Kong: Longman.
- Ma, X., & Kishor, N. (1997). Assessing the relationship between attitude toward mathematics and achievement in mathematics: a meta-analysis. *Journal of Research in Mathematics Education*, 28, 27-47.
- Ma, H. K., Shek, D.T.C., Cheung, D.C., & Lam, C.O.B. (2000). Parental, peer and teacher influence in the social behavior of Hong Kong Chinese adolescents. *Journal of Genetic Psychology*, 16(1), 65-78.
- MacCann, R. (1995). Sex differences at the NSW higher school certificate after adjustment for the effects of differential selection. *Australian Journal of Education*, 39(2), 163-188.
- MacCallum, R. C., Browne, M. W., & Sugawara, H. M. (1996). Power analysis and determination of sample size for covariance structure modeling. *Psychological Methods*, 1, 130-149.
- Maehr, M.L. (1984). Meaning and motivation: Towards a theory of personal investment. In R. E. Ames & C. Ames (Eds.), *Research on motivation in education* (Vol.1, pp. 115-144). New York: Academic Press.
- Maehr, M. L., & Braskamp, L. A. (1986). *The motivation factor: A theory of personal investment*. Lexington, MA: D.C. Heath.
- Man, P. (1991). The influence of peers and parents on youth life satisfaction in Hong Kong. *Social Indicators Research*, 24, 347-365.
- Marchant, G. J., Paulson, S.E., & Rothlisberg, B.A. (2001). Relations of middle school students' perceptions of family and school contexts with academic achievement. *Psychology in the Schools*, 38, 505-519.
- Markus, H. R. and Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychological Review*, 98, 224-253.
- Marsh, H. W. (1986). Verbal and math self-concepts: An internal external frame of reference model. *American Educational Research Journal*, 23, 129-149.
- Marsh, H.W. (1987). The factorial invariance of responses by males and females to a multidimensional self-concept instrument: Substantive and methodological issues. *Multivariate Behavioral Research*, 22, 457-480.
- Marsh, H.W. (1989). Effects of single-sex and coeducational schools: A response to Lee and Bryk. *Journal of Educational Psychology*, 81(4), 651-653.
- Marsh, H. W. (1990a). A multidimensional, hierarchical self-concept: Theoretical and empirical justification. *Educational Psychology Review*, 2, 77-172.
- Marsh, H. W. (1990b). *Self-Description Questionnaire II: A theoretical and empirical basis for the measurement of multiple dimensions of adolescent self-concept: A test manual and a research monograph*. San Antonio, TX: The Psychological Corporation.
- Marsh, H. W. (1991). The failure of high-ability high schools to deliver academic benefits: The importance of academic self-concept and educational aspirations. *American Educational Research Journal*, 28, 445- 480.
- Marsh, H. W. (1992). *Self-Description Questionnaire (SDQ) III: A theoretical and empirical basis for the measurement of multiple dimensions of late adolescent self-concept: A test manual and a research monograph*. New South Wales, Australia: University of Western Sydney, Faculty of Education.



- Marsh, H. W. (1993). Academic self-concept: Theory measurement and research. In J. Suls (Ed.), *Psychological perspectives on the self* (Vol. 4, pp. 59-98). Hillsdale, NJ: Erlbaum.
- Marsh, H. W. (2007). *Self-concept theory, measurement and research into practice: The role of self- concept in educational psychology*. London, England: British Psychological Society.
- Marsh, H. W., Balla, J. R., & McDonald, R. P. (1988). Goodness-of-fit indexes in confirmatory factor analysis: The effect of sample size. *Psychological Bulletin*, 103, 391-410.
- Marsh, H. W., & Craven, R. G. (2006). Reciprocal effects of self-concept and performance from a multidimensional perspective: Beyond seductive pleasure and uni-dimensional perspectives. *Perspectives on Psychological Science*, 1, 133-163.
- Marsh, H.W., Hau, K-T., & Kong, C-K. (2000). Late immersion and language of instruction in Hong Kong high schools: Achievement growth in language and non-language subjects. *Harvard Educational Review*, 70(3), 302-346.
- Marsh, H. W., Koller, O., & Baumert, J. (2001). Reunification of East and West German school systems: Longitudinal multilevel modeling study of the big-fish-little-pond effect on academic self-concept. *American Educational Research Journal*, 38, 321-350.
- Marsh, H. W., & O'Neill, R. (1984). Self- Description Questionnaire III: The construct validity of multidimensional self-concept ratings by late adolescents. *Journal of Educational Measurement*, 21, 153-174.
- Marsh, H.W., Parker, J., & Barnes, J. (1985). Multidimensional adolescent self-concepts: Their relationship to age, sex and academic measures. *American Educational Research Journal*, 22(3), 422-444.
- Marsh, H. W., & Yeung, A. S. (1997). Causal effects of academic self-concept on academic achievement structural equation models of longitudinal data. *Journal of Educational Psychology*, 89, 41-54.
- Marsh, H. W., & Shavelson, R. (1985). Self-concept: Its multifaceted, hierarchical structure. *Educational Psychologist*, 20, 107-123
- Martin, A.J. (1998). *Self-handicapping and defensive pessimism: Predictors and consequences from a self-worth motivation perspective*. (Unpublished doctoral dissertation). University of Western Sydney, Macarthur, Australia.
- Martin, A.J., & Marsh, H.W. (2003). Fear of failure: Friend or foe? *Austrian Psychologist*, 38(1), 31-38.
- Martin, A.J., Marsh, H.W., & Debus, R.L. (2001). Aquadripolar need achievement representation of self-handicapping and defensive pessimism. *American Educational Research Journal*, 38, 583-610.
- Martin, W. E., Jr., Swartz-Kulstad, J. L., & Madson, M. (1999). Psychological factors that predict the college adjustment of first-year undergraduate students: Implications for college counselors. *Journal of College Counseling*, 2, 121-133.
- McClelland, D. C. (1958). Methods of measuring human motivation. In J. W. Atkinson (Ed.), *Motives in fantasy, action, and society*. Princeton: Van Nostrand.
- McGroarty, M. (2001). Situating second language motivation. In Z. Dörnyei & R. Schmidt (Eds.), *Motivation and second language acquisition* (pp. 69-90).



- Honolulu: University of Hawaii Second Language Teaching and Curriculum Center.
- McGregor, H.A., & Elliot, A.J. (2005). The shame or failure: Examining the link between fear of failure and shame. *Personality and Social Psychology Bulletin*, 31, 218-231.
- McInerney, D. M. (2011). Culture and self-regulation in educational contexts: Assessing the relationship of cultural group to self-regulation. In B. Zimmerman & D. Schunk (Eds.), *Handbook of self-regulation of learning and performance* (pp.442-464). New York: Routledge.
- McInerney, D. M. (1988). *Multidimensional aspects of motivation in cross-cultural settings and ways of researching*. Paper presented at the American Educational Research Association Annual Meeting, San Diego, CA.
- McInerney, D. M. (2000). *Helping Kids to Achieve Their Best: Understanding and Using Motivation in the Classroom*. Sydney: Allen & Unwin.
- McInerney, D. M. (2007). Personal investment, culture, and learning. Insights into the most salient influences on school achievement across cultural groups. In F. Salili & R. Hoosain (Eds.), *Culture, Motivation and Learning: A multicultural perspective in Research in Multicultural Education and International Perspectives* (Vol. 6). Greenwich, CT: Information Age Publishing.
- McInerney, D. M. (2008). The motivational roles of cultural differences and cultural identity in self-regulated learning. In D. Schunk & B. J. Zimmerman (Eds.), *Motivation and self-regulated learning: theory, research, and applications* (pp. 368-400). New York: Erlbaum.
- McInerney, D.M., Dowson, M., & Yeung, A.S. (2005). Facilitating conditions for school motivation: Construct validity and applicability. *Educational and Psychological Measurement*, 65, 1046-1066.
- McKnight, C. C., Crosswhite, F.J., Dossey, J.A., Kifer, E., Swafford, J.O., Travers, K.J., & Cooney, T.J. (1987). *The underachieving curriculum: Assessing U. S. school mathematics from an international perspective*. Champaign, IL: Stipes.
- Mctigue, E. & Liew, L. (2011). Principles and Practices for Building Academic Self-Efficacy in Middle Grades Language Arts Classrooms. *The Clearing House*, 84, 114-118.
- Meece, J. L., & Courtney, D. P. (1992). Gender differences in students' perceptions: Consequences for achievement-related choices. In D.H. Schunk & J.L. Meece (Eds.), *Student perception in the classroom* (pp. 209-228). Hillsdale, NJ: Erlbaum.
- Mok, I., Chik, P. M., Ko, P. Y., Kwan, T., Lo, M. L., Marton, F., et al. (2001). Solving the paradox of the Chinese learner. In D. A. Watkins & J. B. Biggs (Eds.), *Teaching the Chinese Learner: Psychological and Pedagogical Perspectives* (pp. 161-179). Hong Kong: Comparative Education Research Centre, the University of Hong Kong.
- Morris, P. (1995). *The Hong Kong School Curriculum*. Hong Kong: Hong Kong University Press.
- Moss, E., & St-Laurent, D. (2001). Attachment at school age and academic performance. *Developmental Psychology*, 37, 863-874.
- Muller, C. (1998). Gender differences in parental involvement and adolescents' mathematics achievement. *Sociology of Education*, 71, 336-356.



- Murray, H. A. (1938). *Explorations in personality*. New York: Oxford University Press.
- Nelson, R. M., & Debacker, R. M. (2008). Achievement motivation in adolescents: The role of peer climate. *The Journal of Experimental Education*, 76(2), 170-189.
- Nicholls, J. G. (1984). Achievement motivation: Conceptions of ability, subjective experience, task choice, and performance. *Psychological Review*, 91, 328-346.
- Oettingen, G., Little, T. D., Lindenberger, U., & Baltes, P. B. (1994). Causality, agency and control beliefs in East versus West Berlin children: A natural experiment on the role of context. *Journal of Personality and Social Psychology*, 66, 579-595.
- Okazaki, S., & Sue, S. (1990). Asian-American education achievements: A phenomenon in search of an explanation. *American Psychologist*, 45, 913-920.
- Okun, M. A., Benin, M., & Brandt-Williams, A. (1996). Staying in college: Moderators of the relation between intention and institutional departure. *Journal of Higher Education*, 67, 577-596.
- Ollendick, T. H. (1983). Reliability and validity of the revised Fear Survey Schedule for Children (FSSC-R). *Behaviour Research and Therapy*, 21(6), 685-692.
- Oxford, R. L. (1993a). Research on second language learning strategies. *Annual Review of Applied Linguistics*, 13, 175-187.
- Oxford, R. L. (1993b). Instructional implications of gender differences in language learning styles and strategies. *Applied Language Learning*, 4 (1-2), 65-94.
- Oxford, R. L., Ehrman, M. E., & Nyikos, M. (1988). Vive la difference? Reflections on sex differences in use of language learning strategies. *Foreign Language Annals*, 21(4), 321-329.
- Oxford, R., & Nyikos, M. (1989). Variables affecting choice of language learning strategies by university students. *The Modern Language Journal*, 73, 292-300.
- Oxford, R., Park-Oh, Y., Ito, S., & Sumrall, M. (1993a). Factors affecting achievement in a satellite-delivered Japanese language program. *American Journal of Distance Education* 7(1), 10-25.
- Oxford, R., Park-Oh, Y., Ito, S. and Sumrall, M. (1993b) Learning a language by satellite television: what influences student achievement? *System* 21(1), 31-48.
- Pajares, F. (1996). Self-efficacy beliefs in academic settings. *Review of Educational Research*, 66(4), 543-578.
- Pajares, F. (1997). Current Directions in Self-Efficacy Research. In M. L. Maehr & P. R. Pintrich (Eds.), *Advances in Motivation and Achievement*, (Vol. 10, pp. 1-49). Greenwich, CT: JAI Press Inc.
- Pajares, F. (2002). *Overview of social cognitive theory and of self-efficacy*. Retrieved from <http://www.emory.edu/EDUCATION/mfp/eff.html>
- Pajares, F., Britner, S., & Valiante, G. (2000). Writing and science achievement goals of middle school students. *Contemporary Educational Psychology*, 25, 406-422.





- Pajares, F., & Miller, M. D. (1994). Role of self-efficacy and self-concept beliefs in mathematical problem solving: A path analysis. *Journal of Educational Psychology, 86* (2), 193-203.
- Pajares, F., Miller, M.D., & Johnson, M.J. (1999). Gender differences in writing self-beliefs of elementary school students. *Journal of Educational Psychology, 91*, 50-61.
- Pajares, F., & Valiante, G. (1999). Grade level and gender differences in the writing self-beliefs of middle school students. *Contemporary Educational Psychology, 24*, 390-405.
- Parker, J. G., & Asher, S. R. (1987). Peer relations and later personal adjustment: Are low-accepted children at risk? *Psychological Bulletin, 102*, 357-389.
- Parker, P., Dowson, M., & McInerney, D. (2007). *Standards for quantitative research in diverse sociocultural contexts*. In D. McInerney, M. Dowson, & S. Van Etten (Eds.), *Standards in Education: Research on sociocultural influences on motivation and teaming* (Vol. 7, pp. 315-330). Greenwich, CT: Information Age Publishing.
- Patrick, H., Ryan, A. M., & Kaplan, A. (2007). Early adolescents' perceptions of the classroom social environment, motivational beliefs, and engagement. *Journal of Educational Psychology, 99*(1), 83-98.
- Parada, R., Craven, R. G., & Marsh, H. W. (2008). *The beyond bullying secondary program: An innovative program empowering teachers to counteract bullying in schools*. In Self-processes, learning, and enabling human potential: Dynamic new approaches (Vol. 3, pp. 373-426). Charlotte, NC: Information Age Publishing.
- Pearson, K. (1908). On the generalized probable error in multiple normal correlation. *Biometrika, 6*, 59-68.
- Peer Support Foundation. (2001). *The peer support program: High schools manual*. Sydney, Australia: Peer Support Foundation.
- Pekrun, R. (2006). The control-value theory of achievement emotions: Assumptions, corollaries, and implications for educational research and practice. *Educational Psychology Review, 18*, 315-341.
- Pekrun, R., Elliot, A. J., & Maier, M. A. (2006). Achievement goals and discrete achievement emotions: A theoretical model and prospective test. *Journal of Educational Psychology, 98*, 583-597.
- Pekrun, R., Elliot, A. J., & Maier, M. A. (2009). Achievement goals and achievement emotions: Testing a model of their joint relations with academic performance. *Journal of Educational Psychology, 101*, 115-135.
- Petkov, J., Harvey, P., & Batterby, M. (2010). The internal consistency and construct validity of the partners in health scale: validation of a patient rated chronic condition self-management measure. *Quality life Resources, 19*, 1079-1085.
- Peng, S. S. (1994). Understanding resilient students: The use of national longitudinal databases. In M.C. Wang & E.W. Gordon (Eds.), *Educational resilience in inner-city America: Challenges and prospects* (pp. 73-84). Hillsdale, NJ: Erlbaum.
- Phillips, D.A., & Zimmerman, M. (1990). The developmental course of perceived competence and incompetence among competent children. In R.J. Sternberg & J. Kolligian (Eds.), *Competence considered* (pp. 41-66). New Haven, CT: Yale University Press.



- Pianta, R. C. (1999). *Enhancing relationships between children and teachers*. Washington, DC: American Psychological Association.
- Pintrich, P. R. (2000). The role of goal orientation in self-regulated learning. In M. Boekaerts, P.R. Pintrich, and M. Zeidner, (Eds.), *Handbook of Self-Regulation, Academic Press*(pp. 451–502). CA: San Diego.
- Pintrich, P. R. (2003). A motivational science perspective on the role of student motivation in learning and teaching context. *Journal of Educational Psychology*, 85(4), 667-686.
- Pintrich, P. R. (2004). A conceptual framework for assessing motivation and self-regulated learning in college students. *Educational Psychology Review*, 16(4), 385-407.
- Pintrich, P. R., & de Groot, E. V. (1990). Motivational and self-regulated learning components of classroom academic performance. *Journal of Educational Psychology*, 82, 33-40.
- Pintrich, P. R., & Schunk, D. H. (1995). *Motivation in education: Theory, research, and applications*. Englewood Cliffs, NJ: Prentice Hall.
- Pintrich, P.R., & Schunk, D.H. (2002). *Motivation in education: Theory, research, and applications*. Upper Saddle River, NJ: Merrill Prentice-Hall.
- Pintrich, P. R., Smith, D. A. F., Garcia, T., & McKeachie, W. J. (1991). *A manual for the use of the Motivated Strategies for Learning Questionnaire (MSLQ)*. Ann Arbor: University of Michigan, National Center for Research to Improve Postsecondary Teaching and Learning.
- Politzer, R. (1983). Research notes: An exploratory study of self-reported language learning behaviors and their relation to achievement. *Studies in Second Language Acquisition*, 6, 54-65.
- Pretty, G. M. H., Andrews, L., & Collett, C. (1994). Exploring adolescents' sense of community and its relationship to loneliness. *Journal of Community Psychology*, 22(4), 346-358.
- Rao, N., Moely, B. E., & Sachs, J. (2000). Motivational beliefs, study strategies, and mathematics attainment in high- and low-achieving Chinese secondary school students. *Contemporary Educational Psychology*, 25, 287-316.
- Redding, G., & Wong, G.Y.Y. (1986). The psychology of Chinese organizational behavior. In M.H. Bond (Ed.), *The Psychology of the Chinese People* (pp.267-395). Hong Kong: Oxford University Press.
- Reglin, G. L., & Adams, D. R. (1990). Why Asian American high school students have higher grade point averages and SAT scores than other high school students. *The High School Journal*, 7(3), 143-149.
- Rietveld, T. & Van, H. R. (1993). *Statistical techniques for the study of language and language behaviour*. Berlin, New York: Mouton de Gruyter.
- Rosenberg, M. (1979). *Conceiving the Self*. Malabar, FL: Robert E. Krieger.
- Ryan, A. M. (2000). The peer group as a context for the development of young adolescent motivation and achievement. *Child Development*, 72(4), 1135-1150.
- Ryan, A. M., & Patrick, H. (2001). The classroom social environment and changes in adolescents' motivation and engagement during middle school. *American Educational Research Journal*, 38, 437-460.



- Sacker, A., Schoon, I., & Bartley, M. (2002). Social inequality in educational achievement and psychosocial adjustment throughout childhood: Magnitude and mechanisms. *Social Science & Medicine*, 55, 863–880.
- Sagar, S., Boardley, I. D., & Kavussanu, M. (2011). Fear of failure and students' interpersonal antisocial behaviour in education and sport. *British Journal of Educational Psychology*, 81(3), 391–408.
- Salili, F. (1994). Age, sex, & cultural differences in the meaning and dimensions of achievement. *Personality and Social Psychology Bulletin*, 2, 635–648.
- Salili, F. (1995). Explaining Chinese students' motivation and achievement: A sociocultural analysis. In M. L. Maehr & P. R. Pintrich (Eds.), *Advances in Motivation and Achievement* (Vol. 9, pp. 73–118). Greenwich, CT: JAI Press Inc.
- Salili, F. (1996). Accepting personal responsibility for learning. In D. A. Watkins & J.B. Biggs (Eds.), *The Chinese learner: Cultural, psychological and contextual influences* (pp. 85–105). Hong Kong: Comparative Education Research Center, University of Hong Kong, and Australia Council for Educational Research.
- Salili, F. (2001). Teacher-student interaction: Attribution implications and effectiveness of teachers' evaluative feedback. In D.A. Watkins & J.B. Biggs (Eds.), *Teaching the Chinese learner: Psychological and pedagogical perspectives* (pp. 77–98). Hong Kong and Melbourne: Comparative Education Research Centre and the Australian Council for Educational Research.
- Salili, F., Chiu, C. Y., & Lai, S. (2001). The influence of culture and context of learning on learning on student's motivation orientation and performance. In F. Salili, C. Y. Chiu, & Y. Y. Hong, *Student motivation: The culture and context of learning*. NY: Plenum.
- Salili, F., Fu, H. Y., Tong, Y.Y., & Tatabai, D. (2001). Motivation and self-regulation: A cross-cultural comparison of the effect of culture and context of learning on student motivation and self-regulation. In C.Y. Chiu, F. Salili, & Y. Y. Hong (Eds.), *Multiple competencies and self-regulated learning: Implications for multicultural education* (Vol. 2, pp. 123–140). Greenwich, CT: Information Age.
- Salili, F., & Lai, M. K. (2003). Learning and motivation of Chinese students in Hong Kong: A longitudinal study of contextual influences on students' achievement orientation and performance. *Psychology in the School*, 40(1), 51–70.
- Sanders, M. R. (1996). New directions in behavioral family intervention with children. In T. H. Ollendick, & R. J. Prinz, (Eds.), *Advances in clinical child psychology*, (Vol. 18, pp. 283–330). New York: Plenum Press.
- Santos, A.R.J. (1999). *Cronbach's Alpha: A Tool for Assessing the Reliability of Scales*. Extension Journal Inc.
- Scarr, S., & Thompson, W. (1994). Effects of maternal employment and nonmaternal infant care on development at two and four years. *Early Development and Parenting*, 3, 113–123.
- Schaps, E., & Solomon, D. (2003). The role of the school's social environment in preventing student drug use. *Journal of Primary Prevention*, 23, 299–328.





- Schneider, B., & Lee, Y. (1990). A model for academic success: The school and home environment of East Asian students. *Anthropology and Education Quarterly*, 21, 358-377.
- Schuh, K. L. (2004). Learner-centered principles in teacher-centered practices? *Teaching and Teacher Education*, 20(8), 833-846.
- Schunk, D. H. (1989a). Self-efficacy and achievement behaviors. *Educational Psychology Review*, 1, 173-208.
- Schunk, D. H. (1989b). Self-efficacy and cognitive skill learning. In C. Ames & R. Ames (Eds.), *Research on motivation in education, Goals and cognitions* (pp. 13-44). San Diego: Academic.
- Schunk, D. H. (1991). Self-efficacy and academic motivation. *Educational Psychology*, 26, 207-231.
- Schunk, D. H. (2001). Social cognitive theory and self-regulated learning. In Zimmerman, B.J. & Schunk. *Self-regulated learning and academic achievement: Theoretical Perspectives*. (2nd ed.). London: Lawrence Erlbaum Associates.
- Schunk, D. H., & Hanson, A. R. (1985). Peer models: Influence on children's self-efficacy and achievement behaviors. *Journal of Educational Psychology*, 77, 313-322.
- Schunk, D. H., Hanson, A. R., & Cox, P. D. (1987). Peer-model attributes and children's achievement behaviors. *Journal of Educational Psychology*, 79, 54-61.
- Schunk, D. H., & Pajares, F. (2002). The development of academic self-efficacy. In A. Wingfield & J. S. Eccles (Eds.), *Development of achievement motivation* (pp. 15-31). San Diego, CA: Academic Press.
- Seaton, M., Marsh, H. W., & Craven, R. G. (2010). Big-fish-little-pond effect: Generalizability and moderation- Two sides of the same coin. *American Educational Research Journal*, 47, 390-433.
- Shavelson, R. J., Hubner, J. J., & Stanton, G. C. (1976). Validation of construct interpretation. *Review of Educational Research*, 46, 407-441.
- Shek, D.T.L., Lee, T. Y., & Chan, L. K. (1998). Perceptions of parenting style and parent-adolescent conflict in adolescents with low academic achievement in Hong Kong. *Social Behaviour and Personality*, 261, 89-98.
- Shimahara, N. K. (1986). The cultural basis of student achievement in Japan. *Comparative Education*, 22, 19-26.
- Siu, S. F. (1994). Taking no chances: A profile of a Chinese-American family's support for school success. *Equity and Choice*, 10(2), 23-32.
- Skaalvik, E. M. (1997). Issues in Research on Self-Concept. In M. L. Maehr & P. R. Pintrich (Eds.), *Advances in Motivation and Achievement* (Vol. 10, pp. 51-97). Greenwich, CT: JAI Press Inc.
- Skinner, E.A., Kindermann, T. A., Connell, J. P., & Wellborn, J. G. (2009). Engagement as organizational construct in the dynamics of motivational development. In K. Wentzel & A. Wigfield (Eds.), *Handbook of motivation in school* (pp. 223-245). Mahwah, NJ: Erlbaum.
- Skinner, E. A., Wellborn, J. G., & Connell, J. P. (1990). What it takes to do well in school, and whether I've got it: A process model of perceived control and children's engagement and achievement in school. *Journal of Educational Psychology*, 82, 22-32.



- Smith, E. V., Wakely, M. B., de Kruif, R.E.L., & Swartz, C. W. (2003). Optimizing rating scales for self-efficacy and other research. *Educational and Psychological Measurement*, 63(3), 369-391.
- Steinberg, L., Darling, N. E., Fletcher, A. C., Brown, B. B., & Dornbusch, S. M. (1995). Authoritative parenting and adolescent adjustment: An ecological journey. In P. Moen, G. H. Elder, Jr., & K. Luscher (Eds.), *Examining lives in context* (pp. 423-466). Washington, DC: American Psychological Association.
- Steinberg, L., Dornbusch, S. M., & Brown, B. B. (1992). Ethnic differences in adolescent achievement: An ecological perspective. *American Psychologist*, 47, 723-729.
- Stevens, J. (1996). *Applied multivariate statistics for the social sciences* (3<sup>rd</sup> ed.). Mahwah, NJ: Lawrence Erlbaum Associates.
- Stevenson, D., & Baker, D. (1987). The family-school relation and the child's school performance. *Child Development*, 58, 1348-1357.
- Stevenson, H. W., & Lee, S. Y. (1996). The academic achievement of Chinese students. In M.H.Bond, (Ed). *The handbook of Chinese psychology*, (pp. 124-142). New York, NY: Oxford University Press.
- Stevenson, H. W., Chen, C., & Lee, S. Y. (1993). Mathematics achievement of Chinese, Japanese, and American children: Ten years later. *Science*, 259, 53-58.
- Stevenson, H. W., & Stigler, J. W. (1992). *The learning gap*. New York: Simon & Schuster.
- Stevenson, H. W., & Lee, S., Chen, C., Stigler, J. W., Hsu, C., & Kitamura, S. (1990). Contexts of achievement: A study of American, Chinese, and Japanese children. *Monographs of the Society for Research in Child Development*, 55, 1-2.
- Stevenson, H. & Lee, S. (1990). Context of achievement: A study of American, Chinese, and Japanese children. *Monographs of the Society for Research in Child Development*, 55.
- Stigler, J.W., & Stevenson, H. W. (1991). How Asian teachers polish each lesson to perfection. *American Educator*, 15 (1), 12-47.
- Sweeting, A. (1998). Education and development in Hong Kong. In P. Stimpson & P. Morris (Eds.), *Curriculum and Assessment for Hong Kong: Two Components, One System* (pp. 5-10). Hong Kong: Open University of Hong Kong Press.
- Tang, S. F. (2011). The relationships of self-concept, academic achievement and future pathway of first year business studies diploma students. *International Journal of Psychological Studies*, 3(2), 123-134.
- Thomas, W. P., & Collier, V. (1997). School Effectiveness for Language Minority Students. *NCBE Resource Collection Series, No. 9*. (pp. 1-96). Washington, DC: National Clearinghouse for Bilingual Education.
- Thompson, T., Altmann, R., & Davidson, J. (2004). Shame-proneness and achievement behavior. *Personality and Individual Differences*, 36, 613-627.
- Thompson, T., & Perry, Z. (2005). Is the poor performance of self-worth protective students linked with social comparison goals? *Educational Psychology*, 25(5), 471-490.
- Triandis, H. C. (1995). *Individualism & collectivism*. Boulder, CO: Westview.



- Triandis, H. C. (1989). The self and social behavior in differing cultural contexts. *Psychological Review*, 96, 506-520.
- Triandis, H. C. (2001). Individualism and Collectivism and personality. *Journal of Personality*, 69(6), 907-924.
- Tsui, B. M., Shum, S. K., Wong, C. K., Tse, S. K., & Ki, W. W. (1999). Which agenda? Medium of instruction policy in post-1997 Hong Kong. *Language, Culture and Curriculum*, 12, 196-214.
- Tsui, A.B.M., & Tollefson, J. W. (2007). Language policy and the construction of national cultural identity. In A.B.M. Tsui and J. W. Tollefson (Eds.), *Language policy, culture and identity in Asian contexts* (pp.1-21). Mahwah, NJ: Lawrence Erlbaum.
- Tung, C. H. (1997). *Building Hong Kong for a new era. Address by the Chief Executive The Honourable Tung Chee Hwa at the Provisional Legislative Council meeting on 8 October 1997.* Hong Kong: The Hong Kong Special Administrative Region of the People's Republic of China.
- Turner, J. C. (2001). Using context to enrich and challenge our understanding of motivation theory. In S. Volet & S. Järvelä (Eds.), *Motivation in learning contexts: Theoretical advances and methodological implications* (pp. 85-104). Amsterdam, the Netherlands: Pergamon.
- Turner, J. C., & Meyer, D. K. (1999). Integrating classroom context into motivation theory and research: Rationales, methods, and implications. In T. C. Urdan (Ed.), *Advances in motivation and achievement: The role of context* (Vol. 11, pp. 87-121). Stamford, CT: JAI.
- Uba, L. (1994). *Asian Americans: Personality patterns, identity, and mental health*. New York: Guilford Press.
- Urdan, T. C. (1997). Examining the relations among early adolescent students' goals and friends' orientation toward effort and achievement in school. *Contemporary Educational Psychology*, 22, 165-191.
- U.S. Department of Labor, Bureau of Labor Statistics. (2005). *Annual averages*. (Household Data). Washington, DC.
- Valentine, J. C., & DuBois, D. L. (2005). Effects of self-beliefs on academic achievement and vice-versa: Separating the chicken from the egg. In H. W. Marsh, R. G. Craven, & D. M. McInerney (Eds.), *International advances in self research* (Vol. 2, pp. 53-78). Greenwich, CT: Information Age Publishing.
- Vieno, A., Perkins, D. D., Smith, T. M., & Santinello, M. (2005). Democratic school climate and sense of community in school: A multilevel analysis. *American Journal of Community Psychology*, 36, 327-341.
- Vieno, A., Santinello, M., Pastore, M., & Perkins, D. D. (2007). Social support, sense of community in school, and self-efficacy as resources during early adolescence: an integrative model, *American Journal Community Psychology*, 39,177-190.
- Vogt, W. P. (1999), *Dictionary of Statistics and Methodology*. Sage, Thousand Oaks, CA.
- Wacquant, L.J.D. (1989). Toward a reflexive sociology: a workshop with Pierre Bourdieu. *Sociological Theory*, 7, 26-63.
- Walberg, H. J. (1984). Synthesis of research on teaching. In M.C. Wittrock (Ed.), *Handbook of research on teaching*. Washington, DC: American Educational Research Association.



- Walker, R. L., Ashby, J., Hoskins, O. D., & Greene, F. N. (2009). Peer-support suicide prevention in a non-metropolitan U.S. community. *Adolescence*, 44, 335-346.
- Wassef, A., Ingham, D., Lassiter-Collins, M., & Mason, G. (1995). In search of effective programs to address students' emotional distress and behavioral problems—Part 1: Defining the problems. *Adolescence*, 30, 523-538.
- Watkins, D. A., & Biggs, J. B. (Eds.). (2001). *Teaching the Chinese learner: Psychological and pedagogical perspectives*. Hong Kong: Comparative Education Research Centre, The University of Hong Kong.
- Way, N., & Chen, L. (2000). Close and general friendships among African American, Latino, and Asian American adolescents from low-income families. *Journal of Adolescent Research*, 15, 274-300.
- Wentzel, K.R. (1993a). Does being good make the grade? Social behavior and academic competence in middle school. *Journal of Educational Psychology*, 85, 357-364.
- Wentzel, K. R. (1993b). Social and academic goals at school: Motivation and achievement in early adolescence. *Early Adolescents* 13, 4-20.
- Wentzel, K. R. (1997). Student motivation in middle school: The role of perceived pedagogical caring. *Journal of Educational Psychology*, 89, 411-419.
- Wentzel, K. R. (1998). Social relationships and motivation in middle school: The role of parents, teachers, and peers. *Journal of Educational Psychology*, 90, 202-209.
- Wentzel, K. R., & Asher, S. R. (1995). Academic lives of neglected, rejected, popular, and controversial children. *Child Development*, 62, 1066-1078.
- Wood, R.E., & Bandura, A. (1989). Social cognitive theory of organizational management. *Academy of Management Review*, 14(3), 361-384.
- Yang, K. S. (1986). Chinese personality and its change. In M. H. Bond (Ed.), *The psychology of the Chinese people*. New York: Oxford University Press.
- Yao, E. L. (1985). A comparison of family characteristics of Asian American and Anglo-American high achievers. *International Journal of Comparative Sociology*, 26, 198-20.
- Yara, P. O. (2010). Students' self-concept and Mathematics achievement in some secondary schools in southwestern Nigeria. *European Journal of Social Sciences*, 13(1), 127-132.
- Yau, O. (1994). *Consumer behavior in China-customer satisfaction and cultural values*. London: Routledge.
- Yockey, R. D. (2008). *SPSS demystified: A step-by-step guide to successful data analysis*. New Jersey: Pearson Prentice Hall.
- Youniss, J., & Smollar, J. (1985). *Adolescent relations with mothers, fathers, and friends*. Chicago: University of Ghicago Press.
- Yu, Y. S. (1976). *History and thought*. Taipei: Luen King Press.
- Yu, A. B., & Yang, K.S. (1994). The nature of achievement motivation in collectivistic societies. In U. Kim, H.C. Triandis, C. Kagitcibasi, S.C. Choi, & G. Yoon (Eds.), *Individualism and Collectivism: Theory, Method and Application*. Thousand Oaks, CA: Sage.
- Zigler, E., & Child, I. L. (1969). Socialisation. In G. Lindzey, & E. Avonson (Eds.), *The handbook of social psychology* (Vol. 3). MA: Addison Wesley



- Zimmerman, B. J. (1989). Models of self-regulated learning and academic achievements. In B. J. Zimmerman & D.H. Schunk (Eds.), *Self-regulated learning and academic achievement* (pp.1-25). New York: Springer.
- Zimmerman, B. J. (1994). Dimensions of academic self-regulation: A conceptual framework for education. In D. H. Schunk & B.J. Zimmerman (Eds.), *Self-regulation of learning and performances: Issues and educational implications* (pp. 3-21). Hillsdale, NJ: Erlbaum.
- Zimmerman, B. J. (2000). Attaining self-regulation: A social cognitive perspective. In M. Boekaerts, P. R. Pintrich, & M. Zeidner (Eds.), *Handbook of self-regulation* (pp. 13-39). San Diego: Academic Press.
- Zimmerman, B. J., & Bandura, A. (1994). Impact of self-regulatory influences on writing course attainment. *American Educational Research Journal*, 31, 845-862.
- Zimmerman, B. J., & Cleary, T. J. (2005). *Adolescents' development of personal agency: The role of self-efficacy beliefs and self-regulatory skill*. In F. Pajares & T. Urdan (Eds.), *Self-efficacy beliefs of adolescents* (pp. 45-69). Greenwich, CT: Information Age Publishing.
- Zimmerman, B. J., & Martinez-Pons. (1990). Student differences in self-regulated leaning: Relating grade, sex, and giftedness to self-efficacy and strategy use. *Journal of Educational Psychology*, 82, 51-59.
- Zimmerman, B.J., & Schunk, D. H. (Eds.). (2001). *Self-regulated learning and academic achievement: Theoretical perspectives* (2<sup>nd</sup> ed.). Mahwah, NJ: Erlbaum.
- Zusho, A., Pintrich, P. R., & Coppola, B. (2003). Skill and will: The role of motivation and cognition in the learning of college chemistry, *International Journal of Science Education*, 25(9), 1081-1094.
- 李曉東 (2000)。 *成就目標，自我效能，價值及課堂環境與學業求助*。香港中文大學教育學院，教育心理系，哲學博士論文。



## Questionnaire (Pilot Test) (appendix 1)

## APPENDICES

香港教育學院  
學生學習生活調查

親愛的同學：

您好！我是香港教育學院心理研究學系博士班三年級學生，現正進行一項關於學生學習生活的調查；是次調查目的為本人畢業論文的資料搜集部分，您是經隨機抽樣法所選取的參加者。這份問卷共有六頁，**雙面影印**，填寫問卷需時約 15 分鐘。是次研究的資料只用作學術研究及作集體的數據分析之用，研究結束後，所有資料一律銷毀。我懇請您撥冗參加，據實作答。如對本研究有任何疑問，請致電本人電話：9787 6254 詢問。

感謝您的支持和意見！

祝  
學業進步

趙志訥

論文指導教授：麥翰林教授  
(心理研究學系講座教授)

2011 年 8 月 25 日

個人資料：請填寫所有答案，或選出最合適的答案並在該圓圈填上「●」。

姓名：\_\_\_\_\_

學號：\_\_\_\_\_

年級：\_\_\_\_\_

年齡：\_\_\_\_\_ 歲

性別：○男 ○女

學校名稱：\_\_\_\_\_

最後一次英文考試成績：

○ 60 分以下

○ 61-70

○ 71-80

○ 81-90

○ 90 分以上

最後一次中文考試成績：

○ 60 分以下

○ 61-70

○ 71-80

○ 81-90

○ 90 分以上

兄弟姊妹人數：\_\_\_\_ 兄 \_\_\_\_ 弟 \_\_\_\_ 姊 \_\_\_\_ 妹 (如沒有，請填上「0」)

父親教育程度：○

小學或以下

○中學

○大學或以上

○其他\_\_\_\_\_

母親教育程度：○

小學或以下

○中學

○大學或以上

○其他\_\_\_\_\_

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父親職業： ○在職                      ○非在職  
母親職業： ○在職                      ○非在職

(一) 請選出最合適的答案並在該圓圈填上「●」。

	完全不 像我	大部 分不 像我	有些 像我	大部 分像 我	非常 像我
<b>中文科</b>					
1. 我相信我能取得優異的中文成績。……………	○	○	○	○	○
2. 即使是最難的中文內容，我確信我也能理解。……………	○	○	○	○	○
3. 我有信心掌握中文科所教的基本知識。……………	○	○	○	○	○
4. 我有信心掌握中文老師所教授的最複雜的內容。……………	○	○	○	○	○
5. 關於中文，不論是平時作業還是測驗，我都有信心取得優異的成績。……………	○	○	○	○	○
6. 我確信自己能掌握中文科所教的技巧。……………	○	○	○	○	○
7. 對於中文，綜合考慮課程的難度，我自己的能力及老師的水準後，我想我會學得很好。……………	○	○	○	○	○
8. 我希望中文科學得很好。……………	○	○	○	○	○
<b>英文科</b>					
9. 我相信我能取得優異的英文成績。……………	○	○	○	○	○
10. 即使是最難的英文內容，我確信我也能理解。……………	○	○	○	○	○
11. 我有信心掌握英文科所教的基本知識。……………	○	○	○	○	○
12. 我有信心掌握英文老師所教授的最複雜的內容。……………	○	○	○	○	○
13. 關於英文，不論是平時作業還是測驗，我都有信心取得優異的成績。……………	○	○	○	○	○
14. 我確信自己能掌握英文科所教的技巧。……………	○	○	○	○	○
15. 對於英文，綜合考慮課程的難度，我自己的能力及老師的水準後，我想我會學得很好。……………	○	○	○	○	○
16. 我希望英文科學得很好。……………	○	○	○	○	○



(二) 請選出最合適的答案並在該圓圈填上「●」。

	非常不同意	較不同意	較同意	非常同意
1. 我擅長英文。.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. 我在英文科取得好成績。.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. 我在英文科經常取得佳績。.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. 英文對我來說是容易的。.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. 我很容易在英語環境中學習。.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. 我擅長中文。.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. 我在中文科取得好成績。.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. 我在中文科經常取得佳績。.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. 中文對我來說是容易的。.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. 我很容易在中文環境中學習。.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

(三) 請選出最合適的答案並在該圓圈填上「●」。

	完全不像我	大部分不像我	不像我	有些像我	像我	大部分像我	非常像我
1. 我常常這樣想：「如果我在這班上的成績不好會怎樣呢？」.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. 我擔心我在這班上成績不好的可能性。.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. 我害怕在這班上表現差是經常推動我努力的原因。.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. 我只想在這班上避免學得很差。.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. 我害怕如果我問老師一個很蠢的問題，他/她會覺得我不優異。.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. 我期盼在這班上，所有的學科都不計分。.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>





(四) 請選出最合適的答案並在該圓圈填上「●」。

	非常 不同意	較 不同意	較 同意	非常 同意
1. 我會因應習作的不同要求，改變我完成作業的方法。……………	○	○	○	○
2. 測驗卷派回後，我會嘗試瞭解犯錯的原因。……………	○	○	○	○
3. 我會針對自己經常犯錯的題目，重複練習到正確為止。……………	○	○	○	○
4. 當我發現成績退步時，我會改變學習方法。……………	○	○	○	○
5. 我會改變學習方法，以達到某科的要求。……………	○	○	○	○
6. 我會思考自己所用的策略是否有效。……………	○	○	○	○
7. 我會與其他人比較，以觀察自己所用的學習策略是否有效。……	○	○	○	○
8. 我會記錄自己的表現，以觀察自己進步了多少。……………	○	○	○	○
9. 當我學習遇上困難時，我會反省自己可能做錯了什麼。……………	○	○	○	○
10. 我會檢討自己是否已改正在學習上所犯的錯誤。……………	○	○	○	○
11. 每個學期開始時，我會制訂學習計劃。……………	○	○	○	○
12. 如果需要較長時間去完成學習，我會事先擬定好工作的程式。…	○	○	○	○
13. 參加重要考試之前，我會按既定的程式，來安排自己的溫習。…	○	○	○	○
14. 我會按照計劃來安排各科所佔用的讀書時間。……………	○	○	○	○
15. 我喜歡把需要做的事一件件地列出來，再順序去做。……………	○	○	○	○



(五) 當你在學習上遇到困難的時候(例如：考試/測驗不及格)，請你回想一下，你有多少時間會有這種感覺？1= (0% 一點都沒有)，2= (25% 時間有)，3= (50% 時間有)，4= (75% 時間有)，5= (100%時間都有)。請選出最合適的答案並在該圓圈填上「●」。

	0% 一 點 都 沒 有 (1)	25% 時 間 有 (2)	50% 時 間 有 (3)	75% 時 間 有 (4)	100% 時 間 都 有 (5)
1. 當我不成功的時候，我的價值會比在我成功的時候少一點。	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. 當我不成功的時候，我會很容易倒下。……………	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. 當我不及格的時候，如果被其他人看到，我會感到很尷尬。	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. 當我不及格的時候，我相信每一個人都知道我不及格。…	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. 當我不及格的時候，我相信一些懷疑我能力的人，會認為他們對我的評價是對的。……………	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. 當我不及格的時候，我擔心其他人對我的看法。…………	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. 當我不及格的時候，我擔心其他人認為我沒有嘗試。……	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. 當我不及格的時候，我的父母（監護人）會很傷心。……	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. 當我不及格的時候，我覺得會被父母（監護人）批評。…	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. 當我不及格的時候，我會失去父母（監護人）的信任。…	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. 當我不及格的時候，我的父母（監護人）會不開心。……	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. 當我不及格的時候，我的父母（監護人）會失望。……	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



(六) 請選出最合適的答案並在該圓圈填上「●」。

	非常 不同意	較 不同意	較 同意	非常 同意	不 適用
1. 我大部分朋友都想學業成績理想。……………	○	○	○	○	○
2. 我大部分朋友都想升讀大學。……………	○	○	○	○	○
3. 我大部分朋友都認為教育浪費時間。……………	○	○	○	○	○
4. 我大部分朋友都想盡早完成初中課程，離開學校。……………	○	○	○	○	○
5. 我朋友說我應該盡早完成初中課程，離開學校。……………	○	○	○	○	○
6. 我朋友叫我盡早完成初中課程，離開學校，依靠父母。……………	○	○	○	○	○
7. 我朋友叫我盡早完成初中課程，離開學校，找工作。……………	○	○	○	○	○
8. 我爸爸(男監護人)認為我有足夠的聰穎，能升讀大學。……………	○	○	○	○	○
9. 如果我決定升讀大學，我爸爸/男監護人會支持我。……………	○	○	○	○	○
10. 我媽媽(女監護人)認為我有足夠聰穎，能升讀大學。……………	○	○	○	○	○
11. 如果我決定升讀大學，我媽媽(女監護)人會支持我。……………	○	○	○	○	○
12. 我爸爸(男監護人)鼓勵我盡早完成初中課程，離開學校。……………	○	○	○	○	○
13. 我爸爸(男監護人)認為我應該盡早完成初中課程，出社會工 作。	○	○	○	○	○
14. 我媽媽(女監護人)鼓勵我盡早完成初中課程，離開學校。……………	○	○	○	○	○
15. 我媽媽(女監護人)認為我應該盡早完成初中課程，出社會工 作。	○	○	○	○	○
16. 在學業上，有些老師鼓勵我要表現出色。……………	○	○	○	○	○
17. 如果我決定升讀大學，這所學校的老師會鼓勵我。……………	○	○	○	○	○
18. 有些老師告訴我，我有足夠聰穎，能升讀大學。……………	○	○	○	○	○

～全卷完～

謝謝你的參與



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## Invitation Letter Principal (Chi) appendix II



校長先生/女士 鈞鑒：

您好！我是香港教育學院心理研究學系博士班學生，現正進行一項關於學生學習生活研究；是次調查目的為本人畢業論文的資料搜集部分。本研究的對象是中二至中四的學生。至於研究目的是探討香港中學生的動機信念與其心理特質，社會文化和學業成就的相互關係。

是次研究分為兩部份，第一部份是問卷調查，第二部份是訪談。問卷總共七頁，所需時間約為 15 分鐘。至於訪問部份，我會抽取七位學生和三位老師接受訪談；面談時間約需半小時，以小組形式進行。訪談將於 2012 年一至二月間進行，屆時會錄下有關對話；以作進一步分析之用。這次問卷調查和訪談所得的資料，只限用於學術研究，所得資料會全部保密。

我希望 貴校能應允此研究邀請。隨函附上回條，敬請填妥後，以電郵方式回覆（s0948499@s.ied.edu.hk）。另外，我們需要得到學生家長或監護人的同意，隨函附上「家長同意信」，以供參考。若有查詢，可致電 9787 6254 與本人聯絡。

敬祝  
教安

趙志訥

論文指導教授：麥翰林教授  
(心理研究學系講座教授)

二零一一年十月二十二日

### 回條

學校名稱 \_\_\_\_\_ 日期 \_\_\_\_\_

1. ☐ 願意接受此次研究調查，由負責老師安排詳情，如有任何疑問請聯絡 \_\_\_\_\_ 老師〔電話 \_\_\_\_\_〕。

2. ☐ 不願意接受此次研究調查。  
校長簽署 \_\_\_\_\_

**Invitation Letter Principal (Eng) Appendix III**

October 22, 2011

Dear Principal,

I am a doctoral student of The Hong Kong Institute of Education. I am conducting a student learning survey and it is part of the data collection for my dissertation. The participants are **Secondary 2-4** students. The objective of the present study is to examine the relationship between motivation beliefs, cognition, a range of sociocultural factors and the academic achievement of secondary school students in Hong Kong.

The study is divided into two parts: a survey questionnaire, and a focus group interview. The questionnaire takes about 15 minutes to complete. For the focus group interview, I will invite 7 students and 3 teachers to participate in an interview in January/February, 2012. The interview will take about 30 minutes per group, and all interviews will be recorded for further analysis. All the data of this study will be kept **STRICTLY CONFIDENTIAL**. Any data collected as part of this study will be used only for **research or educational purposes**.

I will be delighted if your teachers and students participate in this study. Please read the following reply slip, and reply via email ([s0948499@s.ied.edu.hk](mailto:s0948499@s.ied.edu.hk)). Furthermore, I would like to obtain the consent from parents to allow their child to participate in the study. Please read the attached "Parents Consent Letter" for your reference. If you have any questions, please feel free to contact me at 9787 6254.

Yours Sincerely,  
Chao Chih Nuo, Grace  
Thesis Supervisor:  
Prof. MCINERNEY Dennis Michael  
(Chair Professor of Educational Psychology)

**Reply Slip**

Name of the School: \_\_\_\_\_ Date: \_\_\_\_\_

- ☐ Agree to participate in this research, please contact  
Miss/Mr \_\_\_\_\_  
(Tel: \_\_\_\_\_) for the arrangement.
- ☐ Disagree to participate in this research.

Signature of Principal: \_\_\_\_\_



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**Parental consent (Eng) Appendix IV**

22 October 2011

**Parent Consent Letter**

Dear Parents,

I am a doctoral student of The Hong Kong Institute of Education. I am conducting a student learning survey and it is part of my data collection for the dissertation. The participants are **Secondary 2-4** students. The objective of the present study is to examine the relationship among the variables of motivation beliefs, cognitive factors, sociocultural factors and the academic achievement of secondary school students in Hong Kong.

The present study is divided into two parts. The first part is survey questionnaire, and the second part is focused group interview. The questionnaire has 7 pages and it takes about 15 minutes to complete. About the focused group interview, I will select some of the students and teachers to participate in the interview in January/February, 2012. It takes about 30 minutes per group, all interview sections will be recorded for further analysis. All the data of this study will be kept **STRICTLY CONFIDENTIAL**. Any videotapes that are recorded and any written work collected as part of this study will be used only for **research or educational purposes**.

Please reply the following "Reply Slip" to your class teacher within three days. If you have any questions, please feel free to contact me at 9787 6254. Thank you very much for your participation.

Yours Sincerely,  
Chao Chih Nuo, Grace

Thesis Supervisor:  
Prof. MCINERNEY Dennis Michael  
(Chair Professor of Educational Psychology)

**Reply Slip**

(Student name): \_\_\_\_\_ (Grade/class) \_\_\_\_\_ (Student no.) \_\_\_\_\_

Dear Principal: I have read the above letter and I:

**Questionnaire:**

- ☐ Agree my child to participate  
☐ Disagree my child to participate

**Focused Group Interview:**

- ☐ Agree my child to participate  
☐ Disagree my child to participate

Signature of Parent: \_\_\_\_\_

Date: \_\_\_\_\_



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## Parental consent (Chi) Appendix V



致各位家長：

您好！我是香港教育學院心理研究學系博士班學生，現正進行一項關於學生學習生活研究；是次調查目的為本人畢業論文的資料搜集部分。本研究的對象是中二至中四的學生。至於研究目的是探討香港中學生的動機信念與其心理特質，社會文化和學業成就的相互關係。

是次研究分為兩部份，第一部份是問卷調查，第二部份是訪談。問卷總共七頁，所需時間約為 15 分鐘。至於訪問部份，我會抽取七位學生接受訪談；面談時間約需半小時，以小組形式進行。訪談將於 2012 年一至二月間進行，屆時會錄下有關對話，以作進一步分析之用。這次問卷調查和訪談所得的資料，只限用於學術研究，所得資料會全部保密。

隨函附上「家長同意信」，請填妥後於三天內交回班主任。倘若有任何疑問，可致電聯絡趙志訥小姐（9787 6254）。希即示覆為盼。謝謝。

此致

xxx 學校 xxx 至 xxx 年級家長

趙志訥

論文指導教授：麥翰

林教授

(心理研究學系講座教授)

二零一一年十月二十二日

### 家長同意書

〔學生姓名〕 \_\_\_\_\_ 〔年級/班別〕 \_\_\_\_\_ 〔學號〕 \_\_\_\_\_

敬覆者：本人經閱學生學習生活調查的家長同意書，並

請在適當位置上填「 」

**問卷部分：**

- ☐ **同意** 敝子弟參加  
☐ **不同意** 敝子弟參加

**訪談部分：**

- ☐ **同意** 敝子弟參加  
☐ **不同意** 敝子弟參加

此覆

xxxx 學校校長

家長/監護人簽署： \_\_\_\_\_

日期： \_\_\_\_\_



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**香港教育學院  
學生學習生活調查**

**填寫問卷指引**

各位老師：

首先非常感謝你的幫忙，附上參與研究同意書和問卷各一份，以下為派發問卷的指引以供參考。

- 1) 請告訴同學收集問卷的目的為香港教育學院學生的博士論文的資料搜集部分，請強調所有問題並沒有標準答案，凡有關閣下的資料將會絕對保密。是次研究的所有資料只會用作學術研究及作集體的數據分析之用，請同學安心作答。
- 2) 可用**黑色或藍色原子筆**作答。
- 3) 請同學先填寫「**參與研究同意書（問卷調查）**」，a) 本人 \_\_\_\_\_ b) 參加者姓名：\_\_\_\_\_ 和 c) 參加者簽名：\_\_\_\_\_ 三部分填上**學生姓名**。
- 4) 問卷部分，請同學回答所有問題，如有不明白或不懂的字或詞語可以舉手發問。
- 4) 請留意在補充資料部分，
  - \* **上學年(去年)下學期期末考英文/中文考試成績**：如果不記得，請填寫大概的分數。
  - \* **未來一次期中考英文考試成績**。
  - \* **父母職業部分**：如果有同學答此部分有困難，如與父母不同住，或綜援家庭，可以不填寫。
- 5) 同學在做問卷的時候可以巡視一下看有沒有胡亂作答，請鼓勵他們認真作答。
- 6) 當同學做完問卷可以交回，請檢查有沒有問題（如：沒有答漏題）。
- 7) 收回足夠的問卷便完成整個收問卷的過程。

謝謝你們的幫忙和對本研究的支持。

後學  
趙志訥 敬上



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**Student Consent Letter (Chi) Appendix VII**

**香港教育學院**

**心理研究學系**

**參與研究同意書（問卷調查）**

**研究項目名稱：香港中學生的學習信念**

本人\_\_\_\_\_同意參加由首席研究員趙志訥小姐執行，並由首席監督員麥翰林教授負責監督的研究項目。

我理解此研究所獲得的資料可用於未來的研究和學術發表。然而我有權保護自己的隱私，我的個人資料將不能洩漏。

我對所附資料的有關步驟已經得到充分的解釋。我是自願參與這項研究。我理解我有權在研究過程中提出問題，並在任何時候決定退出研究而不會受到任何不正常的待遇或被追究責任。

參加者姓名:

\_\_\_\_\_

參加者簽名:

\_\_\_\_\_

研究員姓名:

\_\_\_\_\_

研究員簽名:

\_\_\_\_\_

日期:

\_\_\_\_\_



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## 有關資料

### 研究項目名稱：香港中學生的學習動機

誠邀閣下參加由首席研究員趙志訥小姐負責執行的研究計劃，她是香港教育學院學生，由首席監督員麥翰林教授負責監督。

本研究的主旨是探討香港中學生的動機信念與其心理特質的關係。是項研究採用量性和質性研究方法。量性研究部分的參加者是 600 名本港中二至中四的學生，他們會來自兩間至四間中學。資料搜集於 2011 年 10 月至 12 月進行。

參與本研究，不涉及任何潛在危險，閣下是自願參與。並享有充分的權利在研究的任何時間退出這項研究，而不會受到任何對閣下不正常的待遇或被追究責任。凡有關閣下的資料將會保密，一切資料的編碼只有研究人員知悉。

如閣下對這項研究有任何不滿，可隨時與香港教育學院人類實驗對象操守委員會秘書周允平女士聯絡(地址：香港教育學院研究與發展事務處 D4-1/F-21 室轉交)。

如閣下想獲得更多有關這項研究的資料，請與趙志訥小姐聯絡，電話

9787 6254 或聯絡她的導師麥翰林教授，電話 2948 6034。

謝謝閣下有興趣參與這項研究。

趙志訥  
首席研究員



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**Student Consent Letter (Eng) Appendix VIII**

**THE HONG KONG INSTITUTE OF EDUCATION**

**Department of Psychological Studies**

**CONSENT TO PARTICIPATE IN RESEARCH (for survey)**

I \_\_\_\_\_ hereby consent to participate in the **survey questionnaire** of the captioned research conducted by Ms. Chao Chih Nuo, Grace and supervised by Prof. MCINERNEY Dennis Michael.

I understand that information obtained from this research may be used in future research and may be published. However, my right to privacy will be retained, i.e., my personal details will not be revealed.

My participation in the project is voluntary. I acknowledge that I have the right to question any part of the procedure and can withdraw at any time without penalty of any kind.

The procedure as set out in the attached information sheet has been fully explained.

**Name of participant**

\_\_\_\_\_

**Signature of participant**

\_\_\_\_\_

**Name of Researcher**

\_\_\_\_\_

**Signature of Researcher**

\_\_\_\_\_

**Date**

\_\_\_\_\_



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### **Information Sheet**

You are invited to participate in a project conducted by Ms. Chao Chih Nuo, Grace, who is a student of the Department of Psychology Studies in The Hong Kong Institute of Education and supervised by Prof. MCINERNEY Dennis Michael.

The study examines the effects of psychological variables on academic achievement for Hong Kong secondary school students.

The research will adopt both quantitative and qualitative methods. 600 students (S2 – S4) from two to four secondary schools will be involved in the quantitative section. Data collection will be conducted in October to December 2011.

No potential risks are anticipated. The study is fully voluntary. The method involves a short survey and a small number of students for the focus group interview.

You have every right to withdraw from the study at any time without penalty of any kind. All information related to you will remain confidential, and will be identifiable by codes known only to the researcher.

If you have any complaints about the conduct of this research study, please do not hesitate to contact Ms. Grace Chow, Secretary of the Human Research Ethics Committee of The Hong Kong Institute of Education in person or in writing (c/o Research and Development Office in room D4-1/F-21 of the Institute).

If you would like to obtain more information about this study, please contact Ms. Chao Chih Nuo, Grace at telephone number 9787 6254 or her supervisor Prof. MCINERNEY Dennis Michael at telephone number 2948 6034.

Thank you for your interest in participating in this study.

Chao Chih Nuo, Grace  
Principal Investigator



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## Questionnaire (Main Study) Appendix IX

香港教育學院  
The Hong Kong Institute of Education  
學生學習生活調查  
Student Learning Survey

親愛的同學：

Dear students,

您好！我是香港教育學院心理研究學系博士班三年級學生，現正進行一項關於學生學習生活的調查；是次調查目的為本人畢業論文的資料搜集部分，您是經隨機抽樣法所選取的參加者。這份問卷共有七頁，填寫問卷需時約 15 分鐘。所有問題並沒有標準答案，並會絕對保密。是次研究的資料只用作學術研究及作集體的數據分析之用。我懇請您撥冗參加，據實作答。如對本研究有任何疑問，請致電本人電話：9787 6254 詢問。

Hi! I am a doctoral student of The Hong Kong Institute of Education. The purpose of the survey is to gather information for my dissertation; it is about student learning among secondary school students in Hong Kong. It has seven pages. It will take you about 15 minutes to complete this questionnaire. There is no standard answer for each question, please answer questions according to your situation. Your answers will be kept STRICTLY CONFIDENTIAL. They will be combined with those of other students and the answers you give will not be identified individually. If you have any questions, please feel free to contact me at 9787 6254.

感謝您的支持！

Many thanks for your support.

祝

學業進步

Wish you all the best.

趙志訥

Grace Chao

論文指導教授：麥翰林教授  
(心理研究學系講座教授)

Thesis Principal Supervisor:  
Prof. MCINERNEY Dennis Michael  
Chair Professor of Educational Psychology

2011 年 8 月 25 日

Date: 25/8/2011



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**個人資料：**請填寫所有答案，或選出最合適的答案並在該圓圈填上「●」。

Personal Information: Please fill in the blank, or choose the suitable answer and fill in 「●」.

姓名：\_\_\_\_\_ 學號：\_\_\_\_\_  
Name Student No.

年級：\_\_\_\_\_ 年齡：\_\_\_\_\_ 歲  
Grade Age

性別：○男 ○女 學校名稱：\_\_\_\_\_  
Gender Name of School

**最後一次英文**考試成績：\_\_\_\_\_ 分  
Latest **English** exam score

**最後一次中文**考試成績：\_\_\_\_\_ 分  
Latest **Chinese** exam score

**估計未來一次英文**考試成績：\_\_\_\_\_ 分  
Estimate your next **English** exam score

**估計未來一次中文**考試成績：\_\_\_\_\_ 分  
Estimate your next **Chinese** exam score

父親教育程度：○ 小學或以下 ○中學 ○大學或以上 ○其他

Father's education level: primary or below/secondary/university or above/others

母親教育程度：○ 小學或以下 ○中學 ○大學或以上 ○其他

Mother's education level: primary or below/secondary/university or above/others

父親職業：○非在職 ○在職，請注明職業：\_\_\_\_\_  
Father's occupation: non-working, working: Please specify occupation

母親職業：○非在職 ○在職，請注明職業：\_\_\_\_\_  
Mother's occupation: non-working, working: Please specify occupation



# 1. Learning and Performance Inventory

請選出最合適的答案並在該圓圈填上「●」。

Please choose the suitable answer and fill in 「●」.

1)	Not at all true of me					
2)	Not true of me					
3)	Fairly true of me					
4)	True of me					
5)	Very true of me					
	<b>中文科 (Chinese Class)</b>	<b>完全不 像我 (1)</b>	<b>大部 分不 像我 (2)</b>	<b>有 一些 像我 (3)</b>	<b>大部 分像 我 (4)</b>	<b>非常 像我 (5)</b>
1.	我相信我能取得優異的中文成績。..... I believe I will receive an excellent grade in Chinese.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2.	即使是最難的中文內容，我確信我也能解。..... I'm certain I can understand the most difficult material presented in the readings for Chinese class	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3.	我有信心掌握中文科所教的基本知識。..... I 'm confident I can learn the basic concepts taught in Chinese class.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4.	我有信心掌握中文老師所教授的最複雜的內容。..... I'm confident I can understand the most complex material presented by the instructor in Chinese class.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5.	關於中文，不論是平時作業還是測驗，我都有信心取得 優異的成績。..... I'm confident I can do an excellent job on the assignments and tests in Chinese class.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6.	我確信自己能掌握中文科所教的技巧。..... I'm certain I can master the skills being taught in Chinese class.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7.	對於中文，綜合考慮課程的難度，我自己的能力及老師 的水準後，我想我會學得很好。..... Considering the difficulty of Chinese class, the teacher, and my skills, I think I will do well in this class.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8.	我希望中文科學得很好。..... I expect to do well in Chinese class.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	<b>英文科 (English Class)</b>					
9.	我相信我能取得優異的英文成績。..... I believe I will receive an excellent grade in English.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10.	即使是最難的英文內容，我確信我也能理解。..... I'm certain I can understand the most difficult material presented in the readings for English class.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11.	我有信心掌握英文科所教的基本知識。..... I am confident I can learn the basic concepts taught in English class.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12.	我有信心掌握英文老師所教授的最複雜的內容。.....	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



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	I'm confident I can understand the most complex material presented by the instructor in English class.					
13.	關於英文，不論是平時作業還是測驗，我都有信心取得優異的成績。..... I'm confident I can do an excellent job on the assignments and tests in English class.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14.	我確信自己能掌握英文科所教的技巧。..... I'm certain I can master the skills being taught in English class.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15.	對於英文，綜合考慮課程的難度，我自己的能力及老師的水準後，我想我會學得很好。..... Considering the difficulty of English class, the teacher, and my skills, I think I will do well in this class.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
16.	我希望英文科學得很好。..... I expect to do well in English class.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>





## 2. Self Description Questionnaire

(二)請選出最合適的答案並在該圓圈填上「●」。只有在不肯定答案的時候才選擇不清楚 (3)。

Please choose the suitable answer and fill in “●”. Only use NOT SURE (3) if you really do not know.

1) Strongly Disagree 2) Disagree 3) Not Sure 4) Agree 5) Strongly Agree		非常 不同 意 (1)	較 不同 意 (2)	不 清 楚 (3)	較 同 意 (4)	非常 同 意 (5)
1.	我擅長英文。..... I am good at ENGLISH.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2.	我在英文科取得好成績。..... I get good marks in ENGLISH.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3.	我在英文科經常取得好成績。..... I have always done well in ENGLISH.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4.	英文對我來說是容易的。..... Work in ENGLISH is easy for me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5.	我很容易在英語環境中學習。..... I learn things easily in ENGLISH.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6.	我擅長中文。..... I am good at CHINESE.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7.	我在中文科取得好成績。..... I get good marks in CHINESE.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8.	我在中文科經常取得好成績。..... I have always done well in CHINESE.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9.	中文對我來說是容易的。..... Work in CHINESE is easy for me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10.	我很容易在中文環境中學習。..... I learn things easily in CHINESE.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



### 3. Performance and Achievement Scale

(三) 請選出最合適的答案並在該圓圈填上「●」。

Please choose the suitable answer and fill in 「●」.

		完全不 像我 (1)	大部分 不像 我 (2)	有些 像我 (3)	大部分 像我 (4)	非常 像我 (5)
1) Not at all true of me 2) Not true of me 3) Fairly true of me 4) True of me 5) Very true of me						
1.	我常常這樣想：「如果我在這班上的成績不好會怎樣呢？」 I often think to myself, "What if I do badly in this class?"	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2.	我擔心我在這班上成績不好的可能性。 I worry about the possibility of getting a bad grade in this class.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3.	我害怕在這班上表現差是經常推動我努力的原因。 My fear of performing poorly in this class is often what motives me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4.	我只想在這班上避免學得很差。 I just want to avoid doing poorly in this class.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5.	我害怕如果我問老師一個很蠢的問題，他/她會覺得我不優異。 I am afraid that if I ask my teacher a 'dumb' question, he or she might not think I'm very smart.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6.	我期盼在這班上，所有的學科都不計分。 I wish this class was not graded.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



#### 4. Self-directed Learning Scale

(四) 請選出最合適的答案並在該圓圈填上「●」。只有在不肯定答案的時候才選擇不清楚 (3)。

Please choose the suitable answer and fill in “●”. Only use NOT SURE (3) if you really do not know.

	非常 不同 意 (1)	較 不同 意 (2)	不 清 楚 (3)	較 同 意 (4)	非常 同 意 (5)
1) Strongly Disagree					
2) Disagree					
3) Not Sure					
4) Agree					
5) Strongly Agree					
1. 我會因應習作的不同要求，改變我完成作業的方法。…… I modify the way I complete my assignments according to the different requirements.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. 測驗卷派回後，我會嘗試瞭解犯錯的原因。…… After I get back my test papers, I try to understand the mistakes I have made.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. 我會針對自己經常犯錯的題目，重複練習到正確為止。…… I focus on my common mistakes and repeatedly practise the items until I get them right.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. 當我發現成績退步時，我會改變學習方法。…… When I find that I decline in my achievement, I change my learning methods.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. 我會改變學習方法，以達到某科的要求。…… I modify my learning methods to meet the needs of a school subject.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. 我會思考自己所用的策略是否有效。…… I reflect upon my learning strategies to see if they are effective.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. 我會與其他人比較，以觀察自己所用的學習策略是否有效。…… I compare myself with others to observe if my learning strategies are effective.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. 我會記錄自己的表現，以觀察自己進步了多少。…… I keep records of my learning performance in order to monitor how much progress I have made.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. 當我學習遇上困難時，我會反省自己可能做錯了什麼。…… When I encounter difficulties in learning, I reflect on possible mistakes that I might have made.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. 我會檢討自己是否已改正在學習上所犯的錯誤。…… I check if I have corrected the mistakes in learning that I have made previously.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. 每個學期開始時，我會制訂學習計劃。…… At the beginning of each school term, I set a learning plan for myself.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. 如果需要較長時間去完成學習，我會事先擬定好工作的程式。… If it will take longer to finish a learning task, I will set a working schedule in advance.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



13.	參加重要考試之前，我會按既定的程式，來安排自己的溫習。... Before important examinations, I arrange my revision according to my planned schedule.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14.	我會按照計劃來安排各科所佔用的讀書時間。..... I schedule the time to study each subject according to my plan.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15.	我喜歡把需要做的事一件件地列出來，再順序去做。..... I like to get a list of the things I need to do, and then tackle them one by one.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



## 5. Performance Appraisal Inventory

(五) 當你在學習上遇到困難的時候(例如:考試/測驗不及格),請你回想一下,你有多少時間會有這種感覺? 1=(0% 一點都沒有), 2=(25% 時間有), 3=(50% 時間有), 4=(75% 時間有), 5=(100%時間都有)。請選出最合適的答案並在該圓圈填上「●」。

Please think about this: when you encounter some learning difficulties, such as failing in an exam, when do you have these feelings? 1= (0% Do not believe at all), 2= (Believe 25% of the time), 3= (Believe 50% of the time), 4= (Believe 75 % of the time), 5= (Believe 100% of the time). Please choose the suitable answer and fill in 「●」

1) Do not believe at all 2) Believe 25% of the time 3) Believe 50% of the time 4) Believe 75 % of the time 5) Believe 100% of the time		0% 一點都沒有 (1)	25% 時間有 (2)	50% 時間有 (3)	75% 時間有 (4)	100% 時間都有 (5)
1.	當我不成功的時候,我的重要性/價值會比在我成功的時候少一點。..... When I am not succeeding, I am less valuable than when I succeed.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2.	當我不成功的時候,我會很容易倒下。..... When I am not succeeding, I get down on myself easily.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3.	當我不及格的時候,如果被其他人看到,我會感到很尷尬。..... When I am failing, it is embarrassing if others are there to see it.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4.	當我不及格的時候,我相信每一個人都知道我不及格。... When I am failing, I believe that everybody knows I am failing.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5.	當我不及格的時候,我相信一些懷疑我能力的人,會認為他們的想法是對的。..... When I am failing, I believe that my doubters feel that they were right about me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6.	當我不及格的時候,我擔心其他人對我的看法。..... When I am failing, I worry about what others think about me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7.	當我不及格的時候,我擔心其他人認為我沒有嘗試。..... When I am failing, I worry that others may think I am not trying.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8.	當我不及格的時候,我的父母(監護人)會很傷心。..... When I am failing, it upsets important others.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9.	當我不及格的時候,我覺得會被父母(監護人)批評。... When I am failing, I expect to be criticized by important others.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10.	當我不及格的時候,我會失去父母(監護人)的信任。...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



	When I am failing, I lose the trust of people who are important to me.					
11.	當我不及格的時候，我的父母（監護人）會不開心。…… When I am failing, important others are not happy.	○	○	○	○	○
12.	當我不及格的時候，我的父母（監護人）會失望。…… When I am failing, important others are disappointed.	○	○	○	○	○



# 6. Facilitating Conditions Questionnaire

(六) 請選出最合適的答案並在該圓圈填上「●」。只有在不肯定答案的時候才選擇不清楚 (3)。

Please choose the suitable answer and fill in “●”. Only use NOT SURE (3) if you really do not know.

		非常 不同 意 (1)	較 不同 意 (2)	不 清 楚 (3)	較 同 意 (4)	非常 同 意 (5)
1) Strongly Disagree						
2) Disagree						
3) Not Sure						
4) Agree						
5) Strongly Agree						
1.	我大部分朋友都想學業成績理想。…………… Most of my friends want to do well at school.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2.	我大部分朋友都想升讀大學。…………… Most of my friends want to go on to college.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3.	我大部分朋友都認為教育浪費時間。…………… Most of my friends think education is a waste of time.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4.	我大部分朋友都想盡早完成初中課程，離開學校。…………… Most of my friends want to leave school as soon as possible.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5.	我朋友說我應該盡早完成初中課程，離開學校。…………… My friends say I should leave school as soon as possible.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6.	我朋友叫我盡早完成初中課程，離開學校，依靠父母。…………… My friends tell me to leave school and go on parents.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7.	我朋友叫我盡早完成初中課程，離開學校，找工作。…………… My friends tell me to leave school and get a job.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8.	我爸爸(男監護人)認為我有足夠的聰穎，能升讀大學。…………… My father thinks that I am bright enough to go on to college or university.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9.	如果我決定升讀大學，我爸爸/男監護人會支持我。…………… If I decided to go on to college or university, my father would encourage me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10.	我媽媽(女監護人)認為我有足夠聰穎，能升讀大學。…………… My mother thinks that I am bright enough to go on to college or university.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11.	如果我決定升讀大學，我媽媽(女監護)人會支持我。…………… If I decided to go on to college or university, my mother would encourage me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12.	我爸爸(男監護人)鼓勵我盡早完成初中課程，離開學校。…………… My father encourages me to leave school as soon as possible.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13.	我爸爸(男監護人)認為我應該盡早完成初中課程，出社會工作。 My father thinks I should leave school as soon as possible to work.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

14.	我媽媽(女監護人)鼓勵我盡早完成初中課程，離開學校。…… My mother encourages me to leave school as soon as possible.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15.	我媽媽(女監護人)認為我應該盡早完成初中課程，出社會工作。 My mother thinks I should leave school as soon as possible to work.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
16.	在學業上，有些老師鼓勵我要表現出色。…… I get encouragement from some of my teachers to do well at school.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
17.	如果我決定升讀大學，這所學校的老師會鼓勵我。…… If I decided to go on to college or university, teachers at this school would encourage me.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
18.	有些老師告訴我，我有足夠聰穎，能升讀大學。…… Some of my teachers tell me I am bright enough to go on to college or university.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

～全卷完～

End of Questionnaire

請檢查你是否已完成所有問題，謝謝你

Please check now that you have answered all the questions.

Thank you very much for your help!



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