Students' motivation in practical schools in Hong Kong

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STUDENTS' MOTIVATION

IN PRACTICAL SCHOOLS IN HONG KONG

By

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Abstract

The setting up of practical schools in Hong Kong aimed to cater for students identified as 'unmotivated'. However, there were no reliable tools in assessing the motivational behaviour of the students being placed in practical schools. This study was the first type of research conducted in Hong Kong intended to examine target students' motivation for learning.

The subjects included 86 students from two practical schools, together with a sample of 121 academically low achievers from two low-band mainstream schools for comparison purpose, 108 of whom were secondary one while 99 were secondary two students. This study consisted of cross-sectional and longitudinal research methods. 50 teachers from two practical schools, as well as 52 teachers from two low-band schools were requested to respond to a questionnaire regarding their perceptions of students' motivational and disruptive behaviour.

The motivational questionnaire involved multifaceted constructs such as attribution of success and failure, task-oriented motivation, learned helplessness, learned hopelessness, work avoidance, self-worth, value and purpose of education, parental support, and positive and negative attitudes towards schooling. Research techniques such as t-test, analysis of variance, effect size, and factor analysis were employed in the data analysis.

The study provided evidence that students in practical schools and low-band schools showed different maladaptive motivation: the former tended to adopt a learned helpless motivation, accompanied with negative emotion whilst the latter were more likely to exhibit self-worth motive and work avoidance attitude. Students in practical schools showed a deterioration in their motivation for learning between secondary one and secondary two. However, there was a positive change in students' motivation for students in low-band mainstream schools. Thus it was found that students' motivation for learning was less likely to be enhanced in a segregated setting.

It is recommended that we should focus on aspects of school policy, the whole school environment and effective teaching strategies so as to enhance students' motivation for learning. Future research should involve quantitative and qualitative methods to collect data direct from classrooms.

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Chapter One

Introduction

The Setting up of Practical Schools

The development of education in Hong Kong over the past three decades has been characterised by a rapid increase in government subsidised basic education and a supportive system being provided to schools. The Government achieved free and compulsory education at primary and junior secondary levels in 1971 and 1979 respectively. With the implementation of 9-year free and compulsory education for every child in Hong Kong, i.e. 6-year primary school and 3-year junior secondary school, in 1979 most secondary schools in Hong Kong had to cater for students with mixed ability. The expansion of the school system from a relatively selective to a universal basic one had the effect of bringing new problems to the school environment. Owing to the lack of both sufficient support from school and also teachers' understanding of students' learning needs, students with learning and behavioural problems may repeatedly encounter difficulties in their studies and become frustrated in their schooling and exhibit disruptive behaviour in classes. As has already been pointed out by Galloway and Goodwin (1987), problems in the curriculum in mainstream schools may further undermine these students' confidence and lead to behavioural problems in addition to their original learning difficulties (p. 173).

The fourth report published by the Education Commission (1990) in Hong Kong opined that some students might become dropouts or delinquents because of their lack of interest in the ordinary school curriculum and

their repeated failure in their schooling. It was also estimated by the Education Commission that there were about 2,000 students aged between 12 and 14 who showed lack of interest in schooling and could not benefit fully from the common-core curriculum in mainstream schools. Thus the Government proposed setting up a new type of special purpose school, known as practical schools, to cater for these students.

The Education Commission (1990) could not deny the fact that 'such schools could have a negative labelling effect on these students and that the integration of the students in standard (regular) classes would be a better approach' (p.46). However, they argued that the 'integration of such students in ordinary schools have given rise to problems in class, adversely affecting the education of all children in the school' and hence 'it led to these students being stigmatized', which in turn might 'lead to behavioural problems and loss of self-esteem' (pp.56-57). They believed that these students might lose out by being kept in the mainstream system and the placement of these students in practical schools was a better alternative. In 1993, the first practical school, the Hong Kong Sea School, was set up by converting a special school for maladjusted students, with the provision of a more practically orientated curriculum.

The Provision of Practical Schools

The practical schools aim at providing education opportunity for children who are unmotivated towards academic work but within compulsory school age. Many of the target students suffer from inadequate parental support and tend to drop out from the mainstream schools. This special type of school would provide an alternative education that placed less emphasis on

academic subjects and focused more on a practically oriented curriculum. The Commission proposed that as well as academic subjects such as Chinese, English, Mathematics, Integrated Science and Social Studies, practical subjects such as Electrical Studies, Accommodation and Catering Services, Book-keeping and Typing would be taught in practical schools. Non-curriculum based skills such as hairstyling, gardening, photography and so forth would also be offered. Since setting up the first practical school in 1993, three more practical schools had been established by 1998. Each practical school can cater for 450 students aged 12 to 14. This new type of school has a more favourable class size and staff support, for example, around 30 students are grouped in each class and two more teachers are provided to each school (i.e. an increase of teacher-class ratio from 1.3 to 1.5 : 1) . School-based social workers are also provided in each school. Boarding facilities are provided to accommodate students whose home environment is not conducive to their study. A summary of the characteristics of practical schools is given at Appendix 1.

Purpose of the Study

The setting up of practical schools may be an administrative measure to reduce protests from teachers in the mainstream schools. However, it is inconsistent with the trend towards inclusive education that all children should be given an equal opportunity to education in an ordinary school setting. Since the setting up of the first practical school in Hong Kong, no research has been carried out to study the motivational problems of these students, neither attempting to throw light on their motivational response nor aiming at studying whether the clientele in these schools

benefit from the alternative education provision. Galloway and Goodwin (1987) have argued that there is little evidence to show that children with adjustment difficulties actually benefit from special school placement and that the chances of spontaneous improvement may even be reduced (p.174). Galloway et al. (1998) also argued that factors within the school rather than those in their home background were the dominant influences on pupils' behaviour in the school (p.79). They also showed that for many pupils primary-secondary school transfer was associated with a significant increase in maladaptive motivational styles and there was a relative increase in learned helplessness in the year following transfer. In accordance with Galloway and his colleagues' argument, it may be assumed that students in practical schools may have a greater disadvantage after the primary-secondary transfer when they are placed in a special purpose secondary school. Hence, it is worthwhile studying the implications of placement of students who lack motivation for learning in practical schools. The purpose of this study, therefore, is to conduct an in-depth investigation of students' motivation in practical schools and to examine whether students' motivation can be effectively enhanced by being placed in practical schools.

Overview of the Thesis

The study will first look into the concepts of motivation and the research on motivation so as to have a full picture of students' motivation in an educational setting. This study will be based on the theoretical framework of motivation to develop measurement to collect data from students and teachers respectively. Chapter 2 of this thesis will review the literature on

motivational concepts and Chapter 3 will examine motivational research conducted in educational settings. Chapter 4 is an explanation of the methodology adopted in this study. The results derived from the analysis of data are reported in Chapters 5 and 6 respectively. Chapter 5 will focus on students' motivation for learning while Chapter 6 is the report on the analysis of teachers' perceptions of students' motivation for learning and disruptive behaviour. The final chapter, Chapter 7, deals with the discussion and conclusion, together with a summary of the findings and a description of the implications.

Chapter Two

Literature Review 1

Concepts of Motivation

Introduction

Motivation is a concept that has undergone major changes, in parallel with the development of psychological theories in the study of human behaviours. Over the last century, several theoretical models of motivation have been proposed by psychologists, and each of them may have contributed some essential views to the understanding of human motivation. Theories of motivation have become more diverse and multifaceted. Before going into an in-depth study of the students' motivation in practical schools, it is necessary to discuss the concept of motivation. Weiner (1992) has claimed that 'motivation lies at the heart, the very centre, of psychology' and it is about 'why human and subhuman organisms think and behave as they do' (p.1). He regarded motivation as the 'study of the determination of thought and action' (p.17). DeCharms (1976) perceived motivation as an inference that we make when we see a constellation of environmental conditions and individual behaviours. One's personal experience, elicited by environmental events, formed the mediating link to one's behaviour through attributing meaning to the environmental event and arousal of purpose or motivation. Personal causation was DeCharms' fundamental assumption about motivation. He suggested a stimulus-response chain that includes a mediating link as follows:

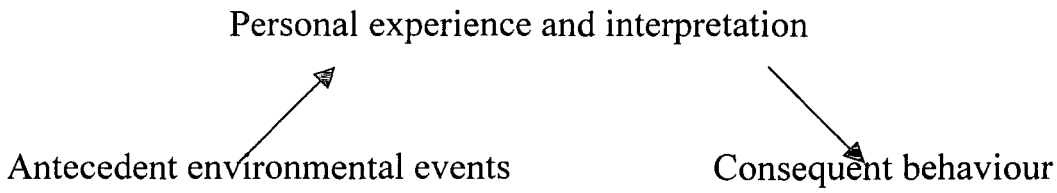

Figure 2.1 *The stimulus-response chain*
(Extracted from DeCharms, 1976, p. 6)

Maehr (1984) stressed that 'the study of motivation begins and ends with the study of behaviour' (p.117). He opined that there are five behavioural patterns relating to motivation:

1. Direction: an individual attends to one thing and not to another.
2. Persistence: an individual concentrates attention on the same tasks or event for a greater or lesser period of time.
3. Activity level: some persons seem to be more active than others on a task or event.
4. Continuing Motivation: an individual continues to engage in a task without apparent incentives.
5. Performance: a consequence of output or product of a variety of factors including the four factors described above.

According to Weiner (1992), motivation theories can be classified into three categories: mechanistic perspectives, expectancy-value approaches and attributional theories. For example, Freud's psychoanalytic theory is considered to be mechanistic, as he believed that human behaviour is driven by instinctual wishes. Atkinson's achievement motivation theory and Rotter's social learning theory are considered to represent expectancy-value conceptions as these theories are based on the assumption that individuals maximize their hedonic pursuits by selecting those activities that are more likely to meet their highly valued goals. Weiner's

attributional approach is based on the assumption that humans are motivated to attain a causal understanding of the world- 'why' an event has occurred. Causal attributions can be classified within three dimensions, namely locus of causality (internal or external to the actor), stability (stable or unstable over time), and controllability (controllable or not controllable). Now we may examine the development of motivational theories in more detail. First, the traditional theories of motivation are discussed, and then the more recent ones.

Traditional Theories of Motivation

Motivation can be regarded as a hypothetical construct, for which different models have been developed over the last few decades. Theorists on motivation have made different assumptions about the cause of motivational behaviour. Freud regarded hedonism and homeostasis as the governing principles of motivation. Homeostasis refers to the tendency towards the maintenance of a relatively stable internal environment while the hedonistic creed asserts that pleasure and happiness are the chief goals of life (Weiner, 1992, pp.28-29). Weiner (1984) comments on Freud's hypotheses and argues, 'it surely seems unlikely that much of classroom behaviour is governed by the sexual and aggressive instincts stressed by Freud' (p.15). Although there are few clear experimental findings to support or refute Freud's motivational hypotheses, his theoretical frameworks have been heuristic in generating new ideas. Guided by the empirical evidence, Hull (1943) argued that motivation is the initiation of learned or habitual behaviour and it is determined by drive, habit, and incentive. Motivation is considered to be a product of habitual strength and

drive. Motivational behaviours are affected by emotion such as anxiety, conflict and frustration. Human motivation can be interpreted from the perspective of Hull's drive theory in the explanation of some motivational behaviours that have biological components. However, Hull's framework, like Freud's theory, focusing on the reduction of biological needs and the survival value of behaviour, has little relevance to the classroom situation. Galloway et al. (1998) object to the concept of drive proposed by Hull and argue that drive theory has separated the notions of motivation and learning. They also argue that in-born levels of drive are very difficult for teachers to influence (pp.21-22). Drive theory is no longer dominant in the study of human behaviour. The main contribution of Hull's drive theory, as Weiner (1992) suggested, has been the systematic and precise exploration of motivated behaviour from a mechanistic point of view. Hence the two classic motivational theories proposed by Freud and Hull are of limited value as tools to explain classroom motivation.

On the other hand, behaviourists regarded motivation as an observable and quantifiable variable. The behavioural approach emphasises the importance of environmental and situational variables on human behaviour. From the behaviourist's point of view, the amount of time children appear 'on task' would indicate the level of their motivation. Learning could be understood and described by studying the overt behaviour and its consequences in the environment (Gagne et al., 1988, p.11). Whether an individual exhibits a particular behaviour in achievement or other settings is perceived as a function of reinforcement, i.e. whether that behaviour has been rewarded or punished. However, critics of behaviourists claimed that using external rewards and reinforcement of children's 'on task' behaviour may have

detrimental effects by leading to a surface approach to learning at the expense of time and effort engaged in learning. Galloway and his colleagues (1998) commented that teachers using a behavioural approach to children's learning may 'overlook the ways in which pupils and teachers interact in the classroom' (p.23). As the traditional theories on motivation were no longer adequate to account for the complexity of human motivation, psychologists such as Atkinson and Rotter believed that humans' motivational behaviours are determined by their goals and by their subjective value. Their expectancy-value theory dominated the study of motivation for nearly two decades, during the period between early 1960s and early 1980s. Weiner (1984, 1992) developed the motivational theory, assuming that understanding is the basic spring of action, his attribution theory linked behaviour to expectation, considering the role of emotion as a motivator. These three motivational theories will be discussed in the next section.

Changes in Thinking about Motivation

Based on the personality measurement, Atkinson developed a theory of achievement motivation in the 1960s. Atkinson viewed achievement behaviour as the result of an emotional conflict between hopes for success and fears of failure. Atkinson's theory of achievement motivation focuses on students' expectations for their achievement-related values. The achievement motivation model developed by Atkinson may represent the most precise of the early cognitive motivational models (Weiner, 1992, p. 202). Rotter, on the other hand, attempted to integrate behavioural theory with a cognitive field model. Rotter is best known for his development of

the concept of locus of control. Rotter's (1982) social learning theory argues that behaviour potential is determined by the expectancy of goal attainment and the value of the goal or reinforcement. Rewards can be perceived as a result of internal factors such as personal ability or effort, or controlled by external factors. One's perception of personal success or failure due to personal or environmental control can influence his or her shift of expectancy. These two theories are illustrated in the following sections.

The recent 'cognitive revolution' has had its influence on theories of motivation. Appley (1990) noted 'there seems to be a continuous interaction between cognition and motivation...the two processes cannot be clearly distinguished from each other' (p.18). Motivation and cognition blended together would produce combined effects. Internal mental processes such as thoughts, expectations, attitudes, perceptions, values, and feelings become the focus of studies of cognitive theorists. Weiner's attribution theory sees motivation as representing the interaction between expectations and the value attached to those expected outcomes. Weiner's work, as Galloway et al. (1998) suggested, can be seen to be a continuation of the themes begun by Atkinson (p.44). Weiner has also developed Rotter's proposed internal-external locus of control and put forward three separate dimensions: locus, stability, and control. Weiner has an optimistic view and believes that we can change students' causal attributions by manipulating variables in the current classroom environment. Cognitive perspectives on motivation are deemed to be applicable to classroom practice, especially for students in practical schools who exhibit low motivation for learning. It is, thus, worthwhile discussing these most recent

theories of motivation so as to have a more thorough understanding of the internal thinking and the motivational behaviour of the 'unmotivated' students.

Atkinson's Achievement Motivation

Atkinson and Feather (1966) developed a theory of achievement motivation from one of the basic human needs based on Murray's taxonomy: the achievement need. According to Murray, the achievement need was conceived as some kind of desire:

> To accomplish something difficult. To master, manipulate or organize physical objects, human beings, or ideas. ... To overcome obstacles and attain a high standard. To excel one's self. To rival and surpass others. To increase self-regard by the successful exercise of talent (quoted by Weiner, 1992, pp168-169).

Atkinson and Feather (1966) propose that achievement behaviour be viewed as the result of an emotional conflict between hopes for success and fears of failure. They have also argued that students' motivation is a stable trait across different contexts, which arises largely from two personality orientations: the achievement-oriented personality and the failure threatened personality. Their account of the motivational process placed little emphasis on environmental variables. The tendency to approach an achievement-related goal is conceived to be a product of three factors:

i) the motive for achievement (Ms);

ii) the probability of being successful at the tasks (Ps); and

iii) the incentive value of success (Is).

On the other hand, the tendency to avoid failure is a function of

i) the motive to avoid failure (Maf);

ii) the probability of failure (Pf); and

iii) the negative value of failure (If).

The theory assumes that the basic variables combine multiplicatively to determine positive achievement motivation (Ms x Ps x Is) and negative failure avoidance motivation (Maf X Pf x If). These two components of motivation combine additively to generate resultant motivation. When the motive to achieve success is stronger than the motive to avoid failure (i.e. Ms > Maf), an individual would demonstrate positive interest in a achievement-related task. In contrast an individual tends to avoid an achievement-related task when the motive to avoid failure is greater than the motive to achieve success (i.e. Maf > Ms).

Based on the studies conducted by Atkinson and others, Weiner (1992) has concluded that individuals with high motive for success would tend to select tasks of intermediate difficulty as tasks of intermediate difficulty have a reasonable prospect of success, which is worth attempting. Individuals tend to have a belief that selection of easy tasks would typically result in success and that no one would admire the outcome owing to the ease of the task. On the other hand, selection of very difficult tasks is likely to result in failure and the blame is placed on the characteristic of the task. Thus performance at tasks of intermediate difficulty has high diagnostic value which provides information about the efforts and abilities of the person undertaking the activities (Weiner, 1992, p.196).

Individuals seem to prefer tasks of intermediate difficulty, this preference

would be more evident among highly motivated individuals. However, individuals classified as highly fearful of failure do not avoid tasks of intermediate difficulty (mentioned in Weiner, 1992, p.195). As such, the complex human behaviour cannot be fully explained by Atkinson's theory. Differential task preference between groups in their achievement needs may indicate disparate need for personal feedback and self- evaluation.

Rotter's Social Learning Theory

Rotter (1982) claimed that 'the unit of investigation for the study of personality is the interaction of the individual and his or her meaningful environment' (p.5). Rotter's theory is based on four fundamental concepts: behaviour potential, expectancy, reinforcement value, and the psychology of the situation. Rotter believes that the potential of any behaviour is determined by the expectancy that the behaviour will lead to reinforcement and by the reward value of the goal. According to Rotter's social learning theory, an individual will have personal difficulties if he or she experiences a low expectancy of success for a highly valued goal. A discrepancy between value and expectancy will cause individuals to adopt deviant or illegitimate means to attain success. Low expectation of success for a high valued goal thus will generate adjustment problems.

Rotter (1982) also described two views that people may have of their control over outcomes. People are concerned whether a potential reinforcer can be attained through one's own actions or personal characteristics such as ability and effort, i.e. through internal control; or other uncontrollable external factors such as luck, chance, powerful others,

i.e. through external control. Situations can be grouped according to the perceived cause of a reinforcement called the locus of control. The locus of control is conceived as one determinant of the expectancy of success. There are individual differences in the perception of environments as personally or externally controlled.

Weiner's Attribution Theory

Weiner has refined and elaborated upon Rotter's concept of locus of control. He put forward the view that "the guiding principle of attribution theory is that individuals search for understandings, seeking to discuss why an event has occurred" (Weiner, 1984, p.18). A motivational sequence is initiated by an outcome that the person interprets as positive (attainment of goal) or negative (non-attainment). He regarded the self-directed thoughts and feelings as intra-personal motivation (Weiner, 2001).

His theory can be illustrated in Figure 2.2 below. A variety of attributional antecedents gives rise to specific causal ascriptions; examples are special information such as past personal history, performance of others, etc. The attributions people make for their success or failure in a task can also be explained by causal rules such as compensation, necessary and sufficient condition for success, hedonistic bias, and observer's disposition versus actor's situational perspectives. For example, high effort can compensate for low ability in a task. The concept of hedonic bias is known as self-serving attribution, ego enhancement, and ego-defensiveness. People tend to take more credit for success than they do responsibility for failure. An actor would attribute his or her actions to situational

requirements while an observer tends to attribute the same action to stable personal dispositions. Perceptions of the cause of achievement outcomes are referred to as causal attributions, such as ability, effort, luck, strategies, etc. The perceived causes of affiliation may be due to physical characteristics, personality, appearance, etc.

Weiner (1992) has developed Rotter's single dimension of internal-external locus of control to three separate dimensions: locus, stability, and control (pp. 248-252). For example, if an individual ascribes his performance to lack of ability, this is likely to be perceived as stable, internal, and not controllable. The causal dimensions have psychological consequences; they are related to the expectancy of success and affect. The stability of a cause influences the relative expectancy of future success. When referring to the affective consequences, high expectancy of success following failure will foster feelings of helplessness or hopefulness. Expectancy of success then will influence a variety of motivational behaviours such as the direction of goal-directed activity or the intensity, quality, and persistence of behaviour. The locus of a cause may influence one's self-esteem and pride. Furthermore, the attribution of internal control as causes of personal failure will affect one's emotion; for example, personal effort will cause an individual to have a feeling of guilt. On the other hand, the attribution of failure to internal uncontrollable causes such as ability will generate a feeling of shame. Finally, expectancy of success and affect will determine the action to be taken. The behavioural consequences can be described in a person's choices, and in the intensity, persistence of behaviour, and so on.

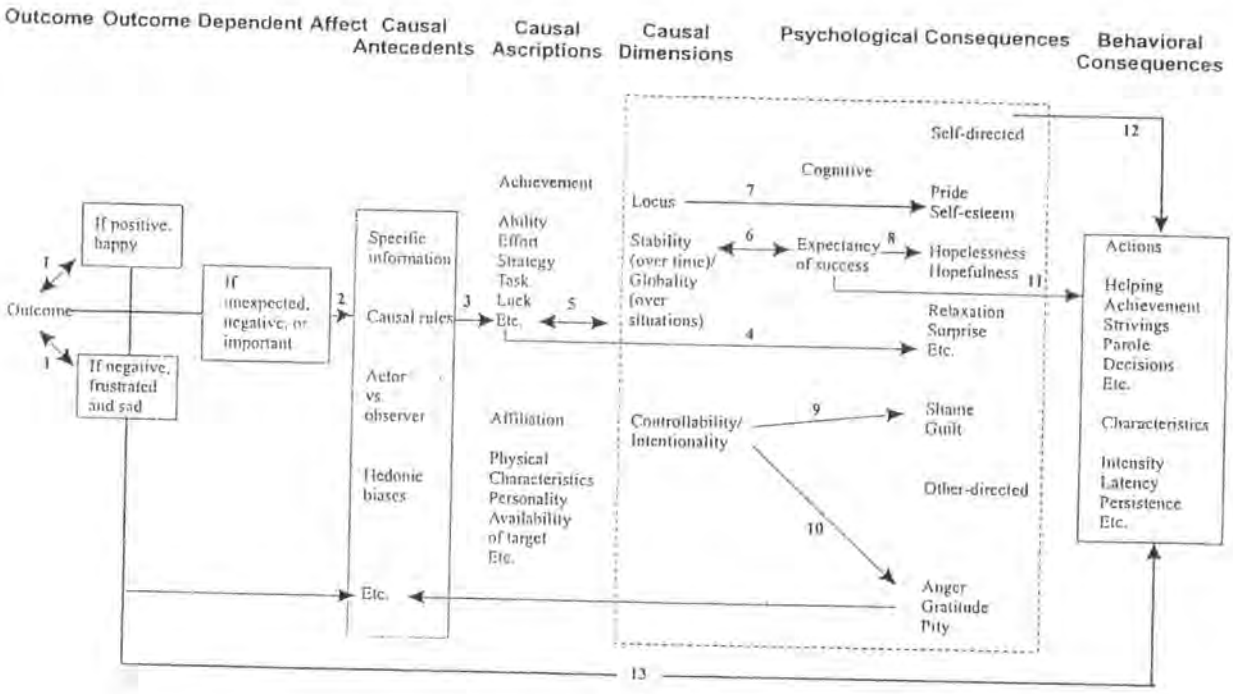

Figure 2.2. *An attributional theory of intra-personal motivation (Extracted from Weiner, 2001, p.19)*

Galloway et al. (1998) criticise Weiner's attribution theory as too narrow to accurately represent the complexity of the attributional process and suggest that we may use an alternative model to study students' responses to learning events and the context in which these events take place (p. 104).

Students' Motivational Styles

Galloway et al. (1998) have pointed out that the notion of motivational styles is contentious. DeCharms (1976) argued that people would behave differently in response to an outside environment. He adopted two terms: Origin and Pawn, to distinguish between two motivational states that are basic to personal causation. According to DeCharms, 'an origin is a person who feels that he is in control of his fate; he feels that the cause of his

behaviour is within himself. A Pawn feels that he is pushed around, that someone else pulls the strings and he is the puppet. He feels the locus of causality for his behaviour is external to himself ' (1976, pp. 5-6). People reacting in a pawn-like response were controlled by external forces and pushed around by other people while 'origin-like' people had a sense of control over their environment.

Research on achievement motivation and attribution has shown that there are at least two distinct motivational styles or patterns emerging from research. For example, Dweck (1986) had distinguished between adaptive and maladaptive motivational patterns: adaptive motivational patterns are those that promote the establishment, maintenance, and attainment of personally valued achievement goals; maladaptive patterns refer to a failure to establish reasonable goals, or setting goals so high that they cannot be reached. Mastery orientation is regarded as an adaptive motivational style, which is characterised by a concern with achieving success, rather than with avoiding failure, and by maintaining reasonable and realistic levels of self-esteem. In contrast, learned helplessness, self-worth and work avoidance are regarded as maladaptive styles. Learned helplessness is a maladaptive motivational style, which prevents pupils from making the most of whatever talents they possess. Learned helpless children may have demonstrated the following maladaptive behaviours when compared with mastery oriented children: ego-orientation, self-doubt, low self-esteem, self-blame, negative attitude towards the task, and high test anxiety.

From an attributional perspective, Galloway et al. (1998) point out that "learned helplessness arises from a strong propensity to attribute a lack of

success to a lack of ability, and to see that lack of ability as being beyond personal control" (p.49). Self-worth theorists, like Covington (1998), contend that protection of a sense of ability is the student's highest priority. Students regard success on culturally important tasks as crucial. In western countries, academic ability is culturally important. Students may handicap themselves by not studying in order to have an excuse for failing that would not reflect their lack of ability. The self-worth motive can be considered a maladaptive motivation, a type of self-defensive mechanism a person can adopt, which includes the reduction of effort, procrastination, and devaluation of the value of the task, as a way of protecting self-esteem against the possible or anticipated effect of failure.

Many researchers have also shown evidence that there are differences in cognitive processes and coping strategies between those who show adaptive styles and those who react maladaptively (Dweck and Worman, 1982). Learned helpless children were more likely to make self-disparaging attributions and were more likely to show performance decrements concurrent with such attributions. They tended to identify lack of ability as a cause of failure. Learned helpless children have significantly lower expectations for future success at tasks on which they have been successful.

Although there is no consensus about the nature of motivation, a student with adaptive motivation is seen as someone who is actively engaged in the learning process, approaches challenging tasks eagerly, exerts intense effort and persistence in the face of difficulty. They also take pleasure in academic tasks and pride in their achievements. Students with maladaptive motivation are passive, exert little effort and abandon the task

easily, do not enjoy school tasks, and avoid them whenever they can. Some students perform well in school with considerable effort while some may perform poorly despite a high degree of effort. It seems that there is not a perfect relationship between motivation and performance. Motivation therefore must be considered distinct from performance (Stipek, 1988, p.13). The motivation behind one's performance is not an easy task to analyse.

Ryan and Deci (2000) made a distinction between intrinsic and extrinsic motivation. Intrinsic motivation is defined as the doing of an activity for inherent satisfaction, interest, or enjoyment rather than for some separable consequence. Intrinsically motivated behaviours are performed out of interest and satisfy the innate psychological needs for competence and autonomy. Extrinsic motivation, in contrast, refers to doing an activity for instrumental value or to attain some separable outcome, for example, a student who does homework in order to avoid parental sanctions or does the assignment because he or she believes that it is valuable for future career. Extrinsically motivated behaviours, thus, vary in the degree to which it is autonomous, ranging from external regulation, introjection, identification to self-integrated regulation. Ryan and Deci (2000) also argue that there is another type of motivation called amotivation, a state of lacking an intention to act. When amotivated, a person's behaviour lacks intentionality and a sense of personal causation. Amotivation results from not valuing an activity, not feeling competent to do it or not believing it will yield a desired outcome. They believe that the basic distinction among motivational styles is in accordance with varied degrees of autonomy or self-determination.

Nicholls' (1989) work on the children's concept of ability also led him to believe that students hold three relatively independent motivational orientations: task-orientation, ego-orientation and work avoidance. Task orientation is concerned with a focus on achievement itself. A feeling of success emerges when learning and progress is taking place. Another dimension consists of ego orientation; students experienced success when their performance surpassed that of their peers or when they avoided looking incompetent. Finally, Nicholls identifies 'work avoidance', wherein students have the tendency to feel successful when work is easy and the tendency to feel successful when 'goofing off'. He also showed that work avoidance was correlated negatively with task orientation whilst correlated positively with ego orientation.

According to the above motivational theorists, we may basically identify three motivational patterns or styles: mastery orientation, learned helplessness and self-worth motive. Mastery orientation can be regarded as an adaptive motivational style while learned helplessness and self-worth are perceived as maladaptive styles. The following sections try to examine these motivational styles in more detail.

Mastery-oriented Motivation

Dweck and Bempechat (1983) found mastery-oriented motivation to be characterized by intensified effort in the face of difficulty. Children who displayed this pattern did not tend to leap to or even seek attributions for failure. These children maintained positive affect and a positive prognosis about task outcomes. Galloway et al. (1998) argued that mastery orientation could be understood as a motivational style characterised by a

concern with achieving success, rather than with avoiding failure, by reasonable and realistic levels of self-esteem, and by a concern to achieve mastery over the subject matter rather than a concern with having oneself to be better than others.

Stipek (2002) regarded mastery orientation motivation as similar to competence motivation. She argued that there is a relationship between competence motivation and intrinsic motivation. People who held competence perception would engender positive affective experiences, which in turn engender intrinsic motivation. Intrinsically motivated students are mastery-oriented; they are more likely to focus on their interests, efforts, and ideas. When students are mastery-oriented, they are preoccupied with identity-enhancement activities that reflect their personal interests and they define their ability as task-oriented. Stipek (2002) believes that intrinsic motivation is worth promoting as it fosters creativity, conceptual understanding, selecting challenge, and active involvement in school learning (pp. 127-129).

Self-Worth Motivation

Self-worth theorists, like Covington (1984 and 1998), contended that the search for self-acceptance is the highest human priority and argued that people have a general tendency to establish and maintain a positive self-image. As a result, the protection of a sense of ability is the students' highest priority when it is threatened by repeated failures (Covington, 1998). He also argued that some children try to maintain a sense of self-worth by adopting self-handicapping strategies such as procrastinating, with-holding effort, not trying in order to have an excuse for failing. The

most direct way of protecting a feeling of self-worth against the threat of failure on a publicly visible and high status task is simply by not trying. By adopting self-handicapping strategies, the causes of failures may become obscured.

As Covington (1984) points out, individuals will act in ways that promote a positive self-identity in order to gain the approval of others and to disassociate themselves from actions or events that may attract negative social sanctions (p. 78). They will use defensive mechanisms such as reduction of effort, procrastination, cheating and setting impossibly high goals so as to maintain a sense of self-worth when failure threatens. However, the effectiveness of these strategies is short-lived; eventually, after repeated failures, the student will become a failure-acceptor. The prolonged or excessive use of failure-avoiding strategies would consequently reduce the individual's will to learn. They may experience feelings of a total loss of personal control over events. A combination of a scarcity of rewards and an undue emphasis on ability in school may force many students to struggle simply to avoid failure rather than to strive for success (Covington, 1984, p. 82). They are motivated not to engage in a task so as to avoid failure. Repeated failures might cause some students to develop a sense of inadequacy; as a result they internalise a learned helpless motivation. Failure experience may continue to affect one's psychological state and functions in new learning tasks. These students adopt strategies to protect themselves from the impact of failure on high status tasks by means of rejecting both effort and ability as the sources of worth, which may lead to dropping out of school or refusing to study.

Learned Helplessness Theory

According to Peterson, Maier, and Seligman (1993), learned helplessness will arise when experience with uncontrollable events leads to the expectation that future events will elude control. Disruptions in motivation, emotion and learning are likely to occur. When an individual attributes failure to causes that he or she cannot control, the maladaptive response of learned helplessness may arise. Learned helplessness can be reflected in motivational and cognitive difficulties in performing a task. Learned helplessness was first investigated in animals by Seligman (1975). Dogs were placed in a situation in which nothing they did prevented them from receiving electric shocks. These dogs became very passive and made no attempt to avoid being shocked, even when they were later placed in a situation in which they could avoid it. Other dogs that had not been placed in the 'helpless' situation quickly learned how to prevent shock by their own behavioural response. Seligman produced laboratory evidence that when an organism experiences trauma it cannot control, its motivation to respond in the face of later trauma wanes. He also obtained a similar response in animals such as cats and rats and non-human primates. Similarly, 'when a man is faced with noxious events that he cannot control, his motivation to respond is drastically undermined' (Seligman, 1975, p.30). He concludes that 'it seems to be generally true that uncontrollability produces deterioration of the readiness of dogs, cats, rats, fish, monkeys, and men to respond adaptively to trauma' (p.31).

According to Seligman, uncontrollable events will have two major consequences: motivational and cognitive. They undermine the motivation to initiate voluntary responses that control other events and

distort the perception of control. Learned helplessness produces a cognitive set in which people believe that success and failure are independent of their own skills or actions and that they have difficulty in learning about how their responses will work (Seligman, 1975, p.38). In summary, helplessness is a disaster for an individual's learning: the motivation to respond is sapped, the ability to perceive success is undermined, and emotionality is heightened. Abramson, Seligman and Teasdale (1978) modified the learned helplessness model by proposing that helpless people make causal explanations for uncontrollable events they encounter and that these explanations affect self-esteem as well as the generality of deficits. The sequence of events leading from noncontingency to a person's helpless behaviour is illustrated as follows(Figure 2.3):

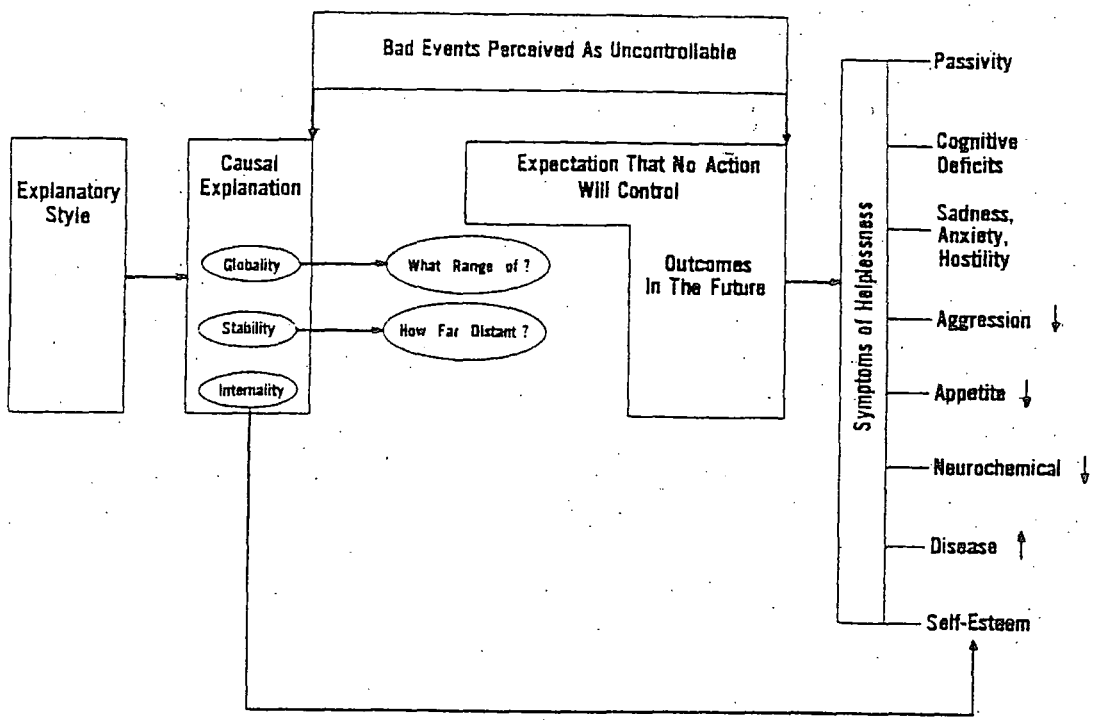

Figure 2.3. *The process of learned helplessness (Extracted from Peterson, et al. 1993, p. 148)*

Dweck and Bempechat (1983) opined that a 'learned helplessness' pattern is accompanied by marked debilitation in the face of obstacles. They interpret repeated failures as implying some rather permanent and generalised incompetence. Dweck and her colleagues (1980) also argued that 'an inference of insufficient ability made at one time might well impair the confidence with which one approaches a task on a future occasion' (p.442). Students showing the helpless pattern would doubt their ability in the face of failure and lose faith in their ability to perform the task. Students prone to the helpless pattern may easily react with self-doubt and disruption, believing that they aren't any good in learning (Dweck, 1999). Helplessness would have a generalised effect because one would perceive continued failure as unavoidable. Learned helpless behaviour can be observed among students in school settings. Students may exert little effort on school tasks and give up easily when they encounter difficulty. Learned helplessness occurs in school situations when students believe that there is nothing they can do to avoid failure. Helpless students usually attribute their failure to low ability. Learned helplessness is a maladaptive motivational style. When students display a 'learned helpless' pattern, they tend to show negative affect, such as anxiety and negative self-cognition when they confront obstacles. Helpless attributions can mediate the generalisation of the effects of failure from an old to a new situation. As Galloway et al. (1998) have noted the learned helpless pattern, once established, can be difficult to break as the pupil has a view of the world that overtly assimilates events into the learned helpless schema (p.33).

If students in practical schools encountered repeated failures in their school experience, they may develop the 'learned helpless' motivational styles.

Other Related Motivational Theories

The learned helpless model is criticised as failing to explain the generality of helplessness deficit across different situations (Au, 1995, p.87). Based on Seligman's framework of helplessness, Abramson and others (1989) developed the learned hopelessness model to account for attributional styles, negative life events, motivational deficit, cognitive deficit, and emotional deficit. Students who face frustration after repeated academic failures and have a negative attributional style may develop hopelessness. On the other hand, Bandura developed the self-efficacy model based on social learning theory (Bandura, 1990 & 1997). The self-efficacy is distinctive from other motivational constructs as it closely corresponds with performance tasks. Zimmerman (2000) believes that self-efficacy has a high validity in predicting students' motivation and learning. Self-efficacy beliefs are defined as individuals' beliefs about their performance capabilities in a particular domain and are relatively situation specific. Efficacy beliefs involve different types of capabilities, such as management of thought, affect, action, and motivation. We will look into these two motivational theories in more detail.

Concept of Learned Hopelessness

According to Abramson, Metalsky and Alloy (1989), learned hopelessness is defined as expectations that highly desired outcomes will not occur or that highly aversive outcomes will occur coupled with an expectation that no response in one's repertoire will change the likelihood of occurrence of these outcomes. A sequence of academic failure in some students can lead to learned hopelessness. The learned hopelessness theory predicts that

situational information and attributional style would predict attributions for life events. To explain the learned hopelessness model, Au (1995) proposed a causal chain characterised by six inter-related parameters, namely academic failures, attributional style, casual attributions, learned hopelessness, hopelessness deficits and achievement performance. The causal chain begins with the occurrence of academic failures and ends with achievement. The causal chain between the six interrelated parameters is given below:

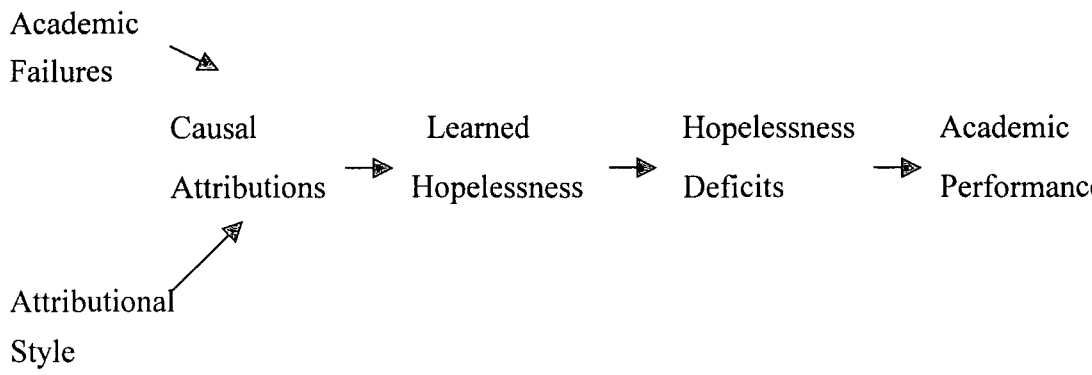

Figure 2.4. *Causal chain of learned hopelessness parameters (Extracted from Au, 1995, p. 87)*

When academic failures are attributed to stable and global causes and are viewed as important, they are more likely to lead to hopelessness. Hopelessness is regarded as a subset of helplessness; as such helplessness can be viewed as a necessary component of hopelessness. It sometimes implies negative affect as well as negative outcome and helplessness expectations. Abramson and his colleagues (1989) also point out that hopelessness will lead to a defined cluster of hopelessness deficits in students. These clusters consists of:

1. Motivational deficits : passivity and lowered persistence;
2. Cognitive deficits: inability to perceive existing opportunities to control outcomes;

3. Emotional deficits : sadness; and
4. Lowered self-esteem.

Self-efficacy Concept

Bandura (1990) regards motivation as a general construct linked to the system of regulatory mechanisms. He distinguishes three broad classes of motivation: those, which are biologically, based, those, which operate through social incentives, and those, which are cognitively based. He suggests that attributional approaches to motivation and expectancy-value theories can be subsumed by self-efficacy. Efficacy is a generative capability in which cognitive, social, emotional, and behavioural sub-skills must be organised and effectively orchestrated to serve innumerable purposes. He states that perceived self-efficacy is another cognitive factor that plays an influential role in the exercise of personal control over motivation (Bandura, 1990, p.82). Perceived self-efficacy refers to beliefs in one's capabilities to organise and execute the courses of action required to produce given attainments (Bandura, 1997, p. 3). He suggests that efficacy beliefs regulate human functioning through four major processes, namely, cognitive, motivational, affective and selective (Bandura, 1997).

Based on their self-belief of efficacy, people choose what challenges to undertake, how much effort to expend in the endeavour, how long to persevere in the face of difficulties, and how much stress and despondency they will experience in the face of difficulties and failures (Bandura, 1990, p. 82). Self-efficacy theory acknowledges the diversity of human capabilities. Bandura (1997) stated that, 'efficacy beliefs are concerned not

only with the exercise of control over action but also with the self-regulation of thought processes, motives, affective, and physiological states' (p.37). Bandura has given an account of evidence showing that strong belief in one's efficacy heightens the level of effort and perseverance in difficult tasks. Elevated self-beliefs of efficacy would heighten effort, whereas lowered self-beliefs lessened effort on troublesome problems. Bandura (1990) supported his argument with evidence showing that perceived self-efficiency determined not only level of effort expenditure, but also how much effort was being deployed. He thus remarked that 'the higher the altered self-efficacy beliefs, the longer people persevered in the face of repeated failures.' He concludes, 'perceived self-efficacy can thus enhance performance through its efforts on thought processes and deployment of strategies as well as on motivation' (p. 87). Self-efficacy beliefs also provide students with a sense of agency to motivate their learning through use of self-regulatory processes as goal setting, self-monitoring, self-evaluation, and strategy use. Perceived self-efficacy predicts the goals people set for themselves and their performance attainments (Bandura, 1997, p. 11). Bandura has illustrated the relationship between efficacy beliefs and outcome expectancies as follows:

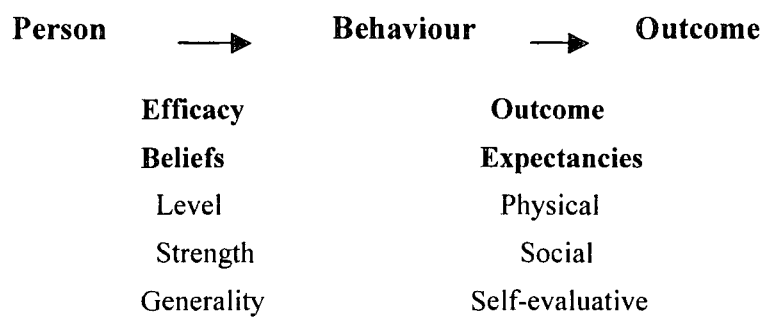

Figure 2.5. The conditional relationship between efficacy beliefs and outcome expectancies (Extracted from Bandura, 1997, p. 22)

The Development of Students' Motivation for Learning

Stipek (1984) has argued that 'achievement motivation develops as a function of a complex interaction between changes in the child and in the environment' (p.170). He observes that children manifest negative or self-defeating behaviours in achievement settings with increasing frequency as they get older and advance into higher grades. Later on in elementary school, many children approach learning tasks less confidently, developing maladaptive avoidance and learned helpless behaviours. Stipek (1984) reported evidence that cognitively not until the end of the second grade did children expect attainment grades to correlate well with their actual performance. Further evidence suggests that there is a relatively steep decline in self-evaluations soon after children enter junior high school. Perceptions of the cause of achievement outcomes also change with development - children in early elementary grades emphasize effort as a cause, whereas older children attribute performance outcomes to ability and other factors in addition to effort.

Stipek's argument has support from Nicholls' findings. Nicholls (1989) demonstrated that there are age-related changes in students' judgements of their own effort and ability, which are parallel to the changes in their conceptions of ability and effort. Children of primary school age do not clearly distinguish between the concepts of ability and effort. By age twelve, most children can clearly differentiate ability and effort and conceive of ability as capacity. When achievement is equal, lower effort implies higher ability. Higher perceived attainment is associated with greater attribution of success to high ability rather than to high effort. The

conception of ability as capacity does appear to have negative consequences for learning when students face the prospect of failure that would indicate their incompetence.

Nicholls (1989) states that 'the development, in early adolescence, of the conception of ability as capacity seems to be a significant landmark in personal growth' (p. 60). In adolescence, individuals rate ability as a more important cause of performance outcomes than effort. Adolescents who have experienced considerable academic failure in school may be especially likely to devalue school achievement and to avoid school tasks in order to maintain a favourable self-image. With a particularly sharp decline, their affect toward school becomes more negative (Stipek, 1984, p.153). Rogers et al. (1998) found that males are more ego-oriented in both English and Mathematics subjects, particularly at age 13. They also found that females have greater degree of avoidance orientation in Mathematics. However, girls are inclined to be more concerned with learning tasks in English than boys. Girls have a tendency to increase in task orientation over the ages 13 to 15. They also found that there was a drop in mastery orientation between the final year of primary education and the first year of secondary education. They concluded that 'motivational style is likely to be more a product of situational than individual variables. ...the immediate context appears to be more important in determining motivational style' (p. 206).

Stipek (1984) suggests that we need to consider changes across grades in educational environments that may contribute to children's achievement motivation and their achievement behaviour. She has proposed that there is

a relationship between achievement-related cognition, the processing of performance feedback and the environment across age (see Figure 2.6 below).

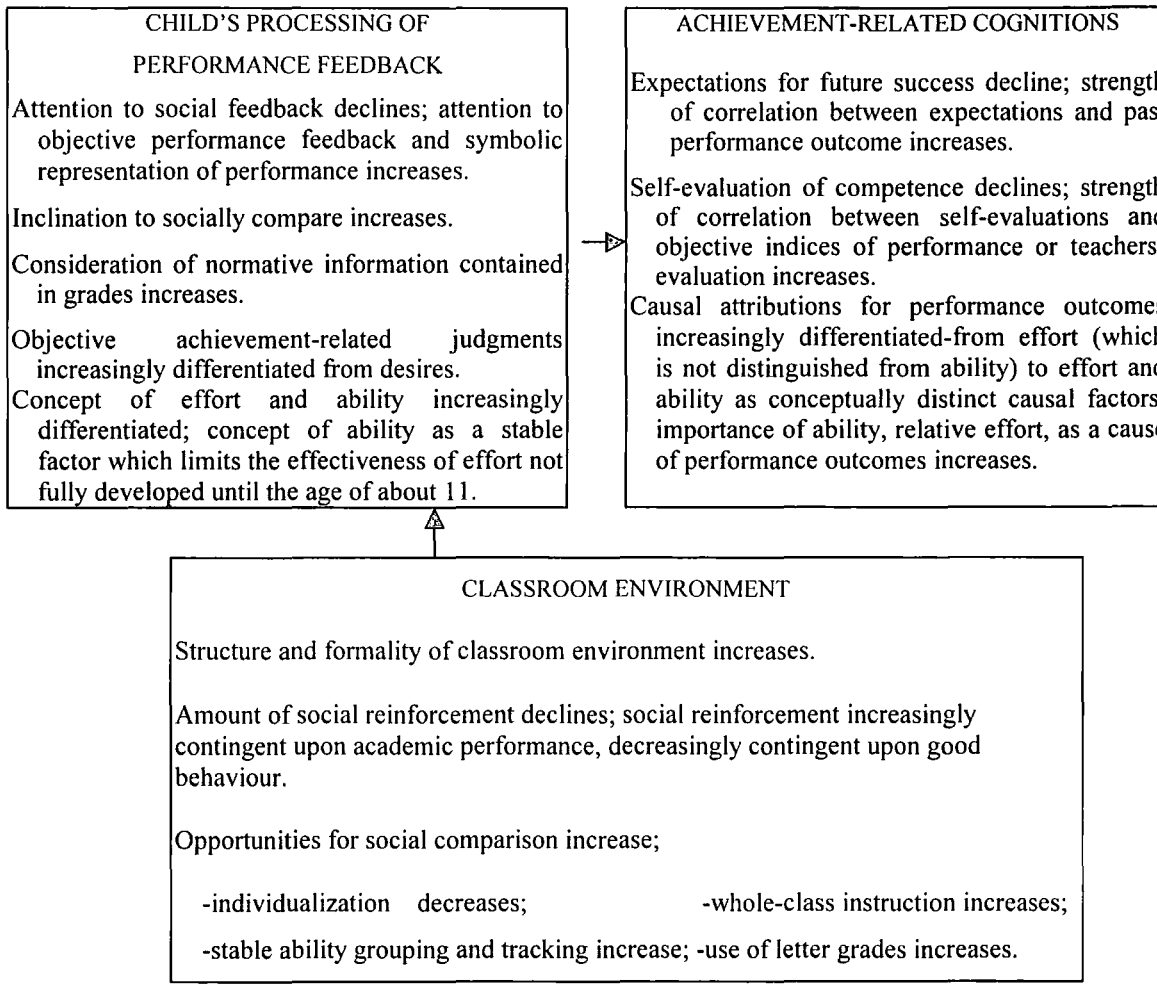

Figure 2.6. *Development change in achievement-related cognitions (Extracted from Stipek 1984, p. 167)*

We may perceive a decline of motivation for learning for students being placed in practical Schools, a segregated school environment for learning.

Family Background in Relation to Students' Motivation for Learning

The Plowden Report (Department of Education and Science, 1967)

reported evidence showing that psychological factors of the home such as parents' aspirations for their children, literacy at home, parents' interests in children's school work accounted for 26 percent of variance (r=0.51) in pupils' achievement while social-status variables accounts for 7 percent of variance (r=0.26) in their achievement, but the school variables only accounted for 6 percent (r=0.24) of the variance. This can be interpreted as evidence that motivational variables at home play important roles in children's academic performance.

Gottfried et al. (1994) predicted that parental motivational practices that encourage pleasure in learning processes, curiosity, persistence, and task engagement are positively related to children's academic intrinsic motivation and achievement while task-extrinsic parental motivational practices that emphasise external control, diminished autonomy, or devaluation of competence are negatively related to children's academic intrinsic motivation and achievement. They reported evidence supporting their prediction that 19 % of variance (r=0.44) in general-verbal intrinsic motivation was attributable to the mother's motivational practices while 24 % of variance (r=0.49) in Mathematics intrinsic motivation was attributable to the mother's motivational practices. Their study provides empirical evidence that children's academic intrinsic motivation is the product of socialization by parents and they argued that parental motivational practices are causal influences on children's academic intrinsic motivation and school achievement. Hokoda and Fincham (1995) argue that children's motivational patterns are related to parental rearing practice. Mothers of mastery-oriented children were more sensitive to their children's ability and beliefs while mothers of helpless children were less responsive to their

children. They provide evidence that the family practice has a significant influence on children's achievement and motivational patterns.

Families and schools can simultaneously influence children's learning outcomes. Epstein (1987) agreed that the degree of overlap in family and school environments helps to explain student's outcomes in motivation, learning, and development. Epstein (1989) further investigated the family variables that influence children's motivation and commitment in school and put forward six family variables that are analogous to those being used by teachers in organising classroom instruction in school. These variables are Task (T), Authority (A), Reward (R), Grouping (G), Evaluation (E), and Time (T). They are called family structures (TARGET), and can be defined as follows:

Task: includes all activities directly and indirectly related to school learning that are conducted at home by children and parents;
Authority: concerns the types and frequency of children's responsibilities and participation in family decisions;
Reward: concerns the procedures and practices that recognise children's efforts and accomplishments;
Grouping: concerns parents' guide to children's contacts in peer and friendship group;
Evaluation: concerns the standard set by parents and children for learning and behaviour; and
Time: concerns the schedules parents set for their children's activities and assignments.

Epstein (1989) believes that TARGET variables contribute to the growth of children's cognitive skills and positive attitudes towards school. The TARGET structures at home are linked to one another and parallel to the structures at school. Effective connections among these structures at home

may assist students' motivation and learning at school. From the research mentioned above, it could be seen that family psychological factors, such as parents' attitude towards their children, their interests in their children's education, social networks at home, and parental motivational practices have important impacts on the children's academic motivation. The children's perception of their parents becomes the inner motivational mediators, which in turn affect children's academic performance. It may also be argued that students' motivation in practical schools is related to the socio-psychological factors in the family.

Chinese Culture in Relation to Students' Motivation for Learning

Besides family factors, cultural factors are believed to be related to students' motivation for learning. Salili et al. (2001) argued that context of learning is influenced by the culture of society such as prevalent norms, values and beliefs. Chen et al. (1996) found that cultural values on importance of education and hard work play important roles in the motivation for learning for Chinese students. Chinese parents set a high standard for their children's schoolwork. Hau and Salili (1996) opined that Chinese students, to a certain extent, consider schoolwork as their duty towards parents. Their evidence showed that effort and ability for Chinese students were not as distinctive as proposed by Weiner in his attribution theory. There was a strong relationship between effort and ability for Chinese students. Hau and Salili (1996) argued that this might originate from Chinese people's strong belief in the power of hard work. Hong (2001) reported evidence showing that most students in Chinese culture believe in

a positive relationship between effort and ability; some of them also believe in a compensatory relationship between effort and ability. These students were more likely to be those who had low academic performance and a lower motivation to learn. Hong (2001) found that the time spent on study was negatively correlated with academic performance among low achievers in Hong Kong. He argued that the lack of positive outcomes after working hard might in turn negatively affect students' motivation for learning. He argued that 'Chinese belief in the relation between effort and ability might be a key to the understanding of the vulnerability of Chinese students' (Hong, 2001, p.113). As students in practical and band 5 schools had experienced failure, they might have a belief that they lacked ability to succeed and that effort spent might not pay off. Thus, it might be argued that students in practical and band 5 schools would adopt a learned helpless motivation. They would attribute their failures to low ability, exert little effort on school tasks and give up easily when they encountered difficulty.

Conclusion

Student behaviour is varied and complex. Applying motivation theory in education settings can help us explain and predict student behaviour. However, to understand students' motivation is not an easy task since there seems to be no single motivational concept that can adequately explain students' motivation. To study students' motivation, we have to amalgamate different motivational theories, especially those recent ones that incorporate a cognitive perspective. As Ames & Ames (1984) put it, 'motivation should be given a central role in evaluating the quality of education, particularly

when considering children of different cultural backgrounds, abilities, and attainment levels' (p.11). By applying motivational concepts, we may be in a better position to understand students' internal mental processes. Based on a study of the specific school context of practical schools in Hong Kong, with a sample of Chinese students, this study wishes to investigate the motivational behaviours of this specific target group. This study will also examine the impacts of school factors and family socio-psychological factors in relation to students' motivation. It will adopt a multifaceted approach to investigate variables that fit into the current concepts of motivation. Hopefully, the result of this study will provide an insight into the understanding of children's learning and behaviour, especially those students labelled as 'unmotivated'. An increase in the knowledge of students' motivation may help us develop a constructive learning environment and effective school programmes conducive to students' learning.

We may argue that students in Hong Kong exhibit motivational behaviour differently from other countries and that students' motivation for learning in practical schools is affected by contextual factors related to culture, family, and school. In order to provide a clear framework for the study of students' motivation, the next chapter of this study will review research conducted in educational settings, as well as those studies conducted in Hong Kong to examine cultural factors in relation to students' motivation for learning.

Chapter Three

Literature Review 2

Studies on Motivation for Learning in Educational Settings

Introduction

In addition to the review of motivational theories and concepts elaborated in the last Chapter, this chapter will focus on the review of research on students' motivation, which has been conducted in educational settings. Areas related to students' motivation for learning such as achievement goals, emotional reaction, motivational styles, cultural differences, teachers' perception, and special school setting will be touched on. The purpose is to make useful reference to studies, which are applicable to the investigation of students' motivation in practical schools. The scope and the hypotheses of this study will be discussed as well.

Achievement Goals and Motivation for Learning

Achievement goal is another variable affecting students' motivation. Salili et al. (2001) concluded that there are at least two major goal orientations: the first type of goal is to demonstrate superior ability relative to others through outstanding performance; and the second type is to develop competence and achieve mastery. She called the former ego goals or performance goals and the latter task goals, mastery goals or learning goals (p. 8).

Dweck and Bempechat (1983) conducted research to study the goals adopted by children in achievement situations. They found that children

who adopted the 'learned helpless' pattern would be more likely to attribute their errors to a lack of ability and that they showed a marked debilitation in the face of obstacles. In contrast, 'mastery oriented' children were characterized by intensified effort in the face of difficulty. Children may also adopt different theories of intelligence. 'Entity' children who believe that intelligence is a rather stable and judgeable trait would adopt goals that tend to involve positive judgements of their intelligence or to avoid negative judgments of their intelligence. In contrast, 'incremental' children who believe that intelligence consists of an ever-expanding expertoire of skills and knowledge would be more likely to choose goals that involve learning and tend to choose challenging tasks that maximize acquisition and to pursue them in a mastery-oriented manner. In sum, an incremental orientation 'would lead children to generate a large set of options, to make decisions based on interests or values, not fear of failure, and to pursue the chosen goal with greater vigour' (p. 253). Further research conducted by Hong et al. (1995) showed that 'entity' children who adopted a performance goal, aiming to gain positive judgements of their competence and to avoid negative ones, might avoid challenging learning situations, thus depriving themselves of opportunities to build the skills that bring success; this might in turn jeopardise building and maintenance of self-confidence' (Hong, Chiu & Dweck, 1995, p.210).

Emotional Reactions and Motivation for Learning

A large amount of research has been conducted to study the relationship between attribution and emotional reaction. For example, Graham (1984) conducted a study to investigate the role of emotions in attribution. He

demonstrated that affective cues communicated by an experimenter can influence children's casual attributions, for example, ability attribution for failure were greater in the sympathy condition while effort attributions were more dominant in the anger condition. His findings indicated that emotional displays by others can guide children's self-perception and may have important implications for self-esteem. Graham also showed that the relative stability of the perceived cause of failure is negatively related to expectancy of success. Furthermore, causal attributions to low ability were associated with low perceived competence. Graham's study partially supported Weiner's theory that competence significantly predicted motivated behaviour.

Covington and Omelich's study (1984) revealed that both effort and ability attributions were related to affective reaction. Low effort was more highly related to guilt, whereas lack of ability was more highly related to shame and humiliation. Furthermore, humiliation was negatively related to their expectancy of success in the next examination performance whereas guilt was positively associated with their expectancy of success in the subsequent examination performance. When turning to expectancy variables, lack of effort was related to low expectancy while higher expectancy would result in better performance. They commented that there are limitations in Weiner's cognitive mode in predicting failure performance and argued that the self-worth approach provides a conceptual integration of the dynamics of fear of failure, self-defensive mechanisms and Weiner's attribution theory. Nevertheless, Weiner's theory linking attribution with emotion reactions and expectancy has received support from these motivational theorists, his model is illustrated in Figure 3.1

below.

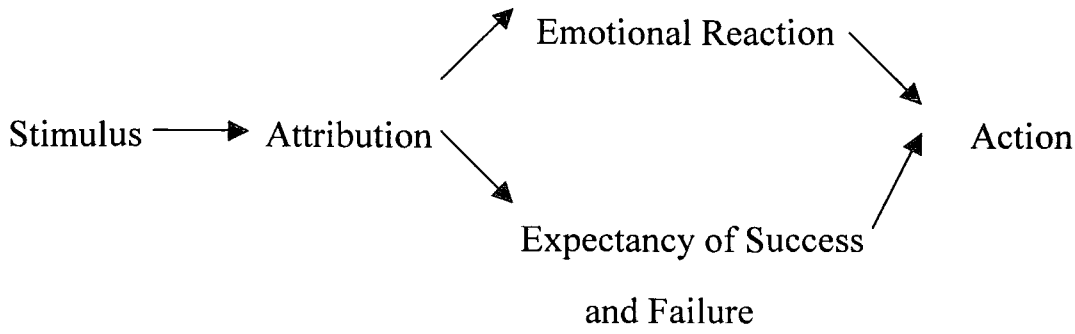

Figure 3.1. *Attribution theory*
(Extracted from Weiner, 1992, p. 284)

Students' Motivational Styles

Based on Abramson and his colleagues' learned helplessness model and Covington's self-worth theory of motivation, Craske (1988) conducted a study aiming to distinguish those children whose deterioration in performance after failure was a consequence of learned helplessness and those whose performance was motivated by the need to maintain the sense of self-worth. She further examined whether these two groups would differ in their attributions for failure and how they would respond to attribution retraining procedures. Children who adopt learned helpless motivation would construe repeated failures as a consequence of lack of ability. They might 'give up trying' because they do not see themselves as capable of success. In contrast, some students adopt a self-worth motive to maintain a self-concept of high ability by not trying. After a failure experience, they may reduce or withdraw effort in order to prevent further damage to their sense of self-worth.

Craske believed that both self-worth protection and learned helplessness would appear amongst primary school children. Self-worth motivated students would lower their persistence after failure because they wish to avoid the appearance of inability while learned helpless students believe that they are unable to control outcomes and therefore trying is irrelevant. She predicted that learned helpless students might give up trying because they did not see themselves as capable of success whereas the self-worth students would maintain a self-concept of high ability by not trying. Craske found that there was a significant difference in response on performance and ability attribution between learned helpless and self-worth groups after the attribution retraining. The learned helpless group placed less importance on lack of ability as a cause of failure. However, the self-worth group tended to rate lack of ability slightly more highly. She argued this was why the attribution retraining was effective in improving the performance of learned helpless children but not for the self-worth group. The self-worth group's fear of failure made them fail to make effort. The evidence also showed that attribution retraining inoculated the learned helpless group against the experience of failure but not the self-worth group.

Craske (1988) has cited evidence showing that girls were more likely to be learned helpless than boys. Aiming to assess motivational styles in relation to gender and curriculum subjects, Galloway and his colleagues (1998) conducted research to compare the prevalence of three motivational styles, namely, learned helpless, self-worth, and mastery-oriented in two curriculum areas, i.e. English comprehension and mathematics. Their assessment of motivational styles was based upon test procedures

developed by Craske. Overall, they provided evidence for a higher prevalence of maladaptive motivational styles in English comprehension than in mathematics irrespective of students' academic ability. Galloway et al. (1998) argued that the lack of attention given by motivational theories to culture and context as a mediating influence between individuals and the tasks and settings in which attributions are made might be problematic (p. 112).

From the studies mentioned above, it might be argued that students in practical schools might adopt a maladaptive motivational style due to lack of experience of success in school tasks. They will avoid challenging tasks, giving up trying easily owing to past experience of repeated failures. They may develop a belief that they cannot control their outcome at school. Their unhappy school experience will contribute to their feelings that they lack ability, together with a feeling of shame. The placement of these students in a practical school may further reinforce their belief that they are failures. A review of research on cultural differences in motivation may help us understand the origin of students' internal mental process.

Cultural Differences in Students' Motivation for Learning

Social cognitive views of achievement have explored a broad range of social and personal factors to explain differences in academic behaviours. Eaton and Dembo (1997) incorporated three major components in their model; the social world (social-cultural milieu), cognitive processes (perceptions and attributions), and motivational beliefs (task values and expectancy). By adopting a social cultural perspective, we can gain a better

understanding of the factors that hinder motivational beliefs and cognitive processes. Cross-cultural studies have found that Chinese children rate themselves significantly lower on the cognitive subscale measurement in spite of the fact that, academically, Chinese children significantly outperform American students (Eaton and Dembo, 1997).

When investigating the differences in the motivational beliefs of Asian American and non-Asian students, Eaton and Dembo (1997) found that Asian American students' fear of the consequence of academic failure had an impact on their performance. Asian American students are reported with lower levels of self-efficacy beliefs, yet they significantly outperformed their non-Asian counterparts on the reading tasks. In their discussion, Eaton and Dembo (1997) argued that cultural factors are important in explaining the differences in achievement motivation between Asian American and non-Asian students. According to their views, parental pressure serves as one of the primary catalysts behind students' motivational behaviour. Asian Americans are socialised to feel responsible to their family and community whose needs and expectations prevail over individual desires. Asian American students possess a high need to approach success and strong fear of academic failure because of the cultural value of educational achievement. They called for sharper focus on clarifying the underlying factors in motivation within each specific cultural group. It may be argued that theories of achievement motivation developed in western countries which are rooted in individualism and stress personal choice and responsibility cannot fully explain the motivational behaviour of Asian students. Thus, it is worth mentioning the implications of cultural studies when examining the motivational characteristics of students.

Studies on Students' Motivation for Learning in Hong Kong

Cultural Influence

Cross-cultural research has given rise to a new perspective on student motivation. Salili (1995) believed that the 'socio-cultural context plays a central role' in study motivation (p. 73). She argued that Chinese students are highly achievement motivated, but that the value they attach to achievement and it's meaning for them differs from that of their western counterpart (p. 74). She conducted three studies to investigate: (a) variations in the meaning and dimensions of achievement among British and Chinese high school students; (b) whether Chinese collectivistic cultural values may enhance students' achievement motivation, and (c) whether there is a relationship between attributions to past performance, learning strategies, and future performance. She obtained evidence showing that there was a close association between succeeding in personal social life, family social life and academic work for Chinese students but not for the British. Her research results also showed that Chinese students on the whole were significantly more motivated to achieve than the British. She obtained further evidence supporting the view that Hong Kong students attributed success and failure more to internal than to external causes. Her research findings suggested that the achieving approach to learning in which students adopt performance goals but seek positive judgement about their ability and effort would be responsible for a high level of achievement, whereas the surface approach in learning results in low achievement. She argued that collectivism in the Chinese culture has important implications for students' achievement in Hong Kong. Collectivism stands for a

preference for tightly knit social frameworks in which individuals can expect their relatives, clan, or other members of the in-group to look after them in exchange for unquestioning loyalty (quoted in Salili, 1995, p.75).

Academic success brings a sense of pride and joy to the whole family, while academic failure is perceived as letting one's family down and causing them to lose face. Salili (1995) also provided evidence showing that the concept of success in Hong Kong high-school students was associated with a happy family, academic achievement, career success, and having many friends. Collectivistic values may result in a higher level of motivation and more effort towards learning. She concluded that 'it is difficult to apply western theories of motivation and achievement to explain the achievement behaviour of people with a different cultural background. Cultural values as well as situational and contextual factors mediate achievement cognition and behaviour' (Salili, 1995, p. 109). It can be seen that interpersonal relationship and social recognition are important motives for success in Chinese students. Hence, student motivation should be understood and defined in terms of the social and cultural context of individuals.

Value of Education

Lau and Nicholls (1997) conducted a study to compare views of Hong Kong students with their American counterparts in areas such as purpose of schooling, perceived causes of success in work, satisfaction with school, perceived ability, and plans to go to college. Their results showed that the purposes of school are more closely linked to beliefs about the causes of

success in work among American students than among Chinese students. American students believed more strongly that school should teach them to understand science, think critically, be useful to society, and consider the family first. However, Hong Kong students felt more strongly than American students that school should teach them to creatively face challenge, make sacrifices and respect authority, and to prepare them to earn money for respect, earn money for luxuries, and get into the best colleges and jobs. In comparison to American students, Chinese students were higher on the beliefs that to succeed in work they must show interest and effort, attempt to defeat and con others, and have luck, wealth, and superior intelligence. The study suggested that the connection between the purpose of school and beliefs about the causes of success in work be sharply separated in the minds of Hong Kong students. Hong Kong students regarded showing interest and effort as vital to success in work. They were more oriented towards goals in education related to wealth and status and concerned more highly with the extrinsic values of education, such as being able to earn money for respect and luxuries and to get into best colleagues and jobs. From this study it seems that schools in Hong Kong do not teach students to think critically; students in general adopt a pragmatic value towards education. It may be argued that students in practical schools will adopt pragmatic and extrinsic values towards schooling and education. They may have a strong fear of academic failure and a lower level of self-efficacy beliefs.

Social-orientation for Achievement

Influenced by Confucianism beliefs, Chinese people place an extraordinarily high emphasis on effort and there is also a strong belief that one's failure is not due to one's internal make-up or ability. Yang (1993) points out that Chinese are inclined to have a much stronger social-orientation for achievement and a much weaker individual-oriented need for achievement and there is a continuation of traditional motivational proclivities with a collectivistic orientation (p. 115). Diligence is believed to be key to successful academic performance; effort is, therefore, regarded as the main determinant of success or failure. Furthermore, Chinese parents place great emphasis on the achievement of their children. Ho (1986) reported evidence that the most frequently mentioned personal characteristics which parents expected of the child when grown up were those concerned with competence and achievement (p. 25).

Ho (1986) also reported there are also cultural differences in the meaning and outcomes of achievement. For Chinese students, achievement motivation is based on group or collectivist values whereas western counterparts want to do well to meet individual goals (Ho, 1986, pp. 27-29). Socially-oriented achievement motivation can be defined as an extrinsic and instrumental desire in which achievement-related behaviour is affected or determined by significant others, the family, the group, or the society as a whole (Yang, 1993, p.114).

There is evidence that students' motivation in Hong Kong is rooted more firmly in the collectivistic than in the individualistic orientation (Salili, 1995). Since Chinese students are inclined to have a much stronger

social-oriented need for achievement and a much weaker individual-oriented need for achievement than western students, they are more likely to have higher scores on self-report motivational assessment inventories and lower scores on projective techniques such as the Thematic Apperception Test (TAT) which investigate the less conscious influences on behaviour. It can also be argued that the TAT is more relevant to the western setting, focusing on individualistic perceptions and accomplishment (Salili, 1995, p. 84). Chinese students are reported to have rather low needs for achievement when using a projective procedure (Yang, 1993, p.112). Thus we must be careful when interpreting results of cultural studies obtained from projective protocols. In view of the cultural differences in response to motivational measurement, this study will use research methods such as questionnaire and interview rather than projective techniques to collect data in relation to students' motivation for learning.

Causal Attribution for Achievement

Cross-cultural studies have also revealed that cultural factors mediate causal attributions for achievement. Hau (1989a) has explored the developmental changes in primary school students' academic attainment, attributions, and expectancy in Hong Kong. He found that younger students made more controllable attributions, had higher expectancy, and perceived themselves as doing better in school activities. A further study to examine the causal meanings (e.g., controllability) of individual causes (e.g. effort) of secondary school students conducted by Hau (1989b) also showed that secondary students believed that effort, interest in study skills,

and ability in study are internal, controllable, stable and global.

Au (1995a) points out learned helplessness will lead to three dimensions of causality: causal attributions, attributional styles, and hopelessness deficit. When students face frustration and academic failures and have a negative attributional style, they tend to develop hopelessness with characteristics of motivational deficits (passivity and lowered persistence), cognitive deficits (inability to perceive existing opportunity to control outcomes), and emotional deficits (sadness and lowered self-esteem). The basic premise of the learned hopelessness theory is that people, when faced with negative life events, become passive and depressed when they attribute negative events to stable and global causes. Au (1995b) proposed that in Hong Kong, academically low achievers (ALA) will eventually develop learned hopelessness after repeated failures because ALAs are influenced by Chinese cultural values that stress hard work and persistence coupled with a harsh learning environment. He conducted a study to investigate the effects of academic failure and causal attributions to learned hopelessness of academically low achievers in Hong Kong. Learned hopelessness refers to the expectation that highly desirable outcome will not occur or that highly aversive outcomes will occur and that one is helpless to change the situation. In learned helplessness, when the individual learns that certain outcome and responses are independent, he or she then makes an attribution about the cause that determines subsequent expectation for lack for control. For example, learned helpless children would make attributions for their failures to a lack or a loss of ability, express negative affect towards the task and engage in more and more task-irrelevant deeds. Learned helplessness involves a high expectancy of non-contingency

between one's response and desired outcomes, whereas learned hopelessness involves negative expectations about the occurrence of highly probable outcomes in addition to a helpless expectancy.

He showed evidence that academic failure was a major predictor of learned hopelessness. ALAs, when compared with non-ALAs, had significantly higher scores in academic failure, learned hopelessness and causal stability for academic failures. He also found students of upper grades (Secondary 3) had higher scores on academic failure and causal globality (i.e. affecting many areas of one's life rather than a single area) than lower grade students (Secondary 1). His study also indicated that boys were far more likely to develop learned hopelessness than girls. Au (1995b) concluded that academic failure could be both a symptom and a cause of learned hopelessness because students with more academic failures were more likely to endorse stable explanations for their failure than those with fewer academic failures; and that academic failure, causal externality, and causal stability were all related to learned hopelessness. His findings provide empirical support for learned hopelessness being prevalent amongst adolescent students in the Hong Kong context.

Hau and Salili (1991) conducted a systematic study among Chinese high and low achievers in high school in order to examine causal attributions for achievement, their structure, and the meaning perceived by students. The subjects were Hong Kong Chinese students of average academic performance attending grades 9 and 11. Hau and Salili used the semantic differential technique to measure the meaning of causal attributions. The evidence of their studies showed that effort, interest in study, study skill,

and ability in learning were considered the most important causes for academic performance. In total, these factors accounted for 56% of the variance. These factors were also perceived as the most important causes of academic performance and were internal, controllable, stable, and global in nature. Their study, contrary to other findings based on samples of children from western cultures, showed that effort was the most salient characteristic in the measurement scale. Chinese students in Hong Kong perceived effort as internal and controllable causes for achievement. The emphasis on hard work and taking responsibility for one's performance exists equally for both high and low achievers. Their study may reflect a strong sense of moral responsibility for academic achievement in Chinese students.

Educational Context in Relation to Motivation for Learning

The education context also has an important impact on student motivation. Factors such as the educational system, school conditions, class size, support services have been related to children's motivation and achievement. The context of learning in Hong Kong has been characterised as highly structured, with authoritarian teachers, large class size, expository teaching methods and excessive homework. Hong Kong's schools have been dominated by an ideology described by Morris and Chan (1997) as 'academic rationalism' and 'collection code'. It involves a strong framework with low level control by teachers and pupils, strong distinctions between school subjects, and strong boundaries to the influence of the outside world. Schools are provided with lists of permitted subjects,

textbooks, teaching syllabuses and examination syllabuses. This is manifested by curricula that are centrally and bureaucratically controlled. Teacher centred education and traditional curricula tend to increase failure among at-risk children and may restrict students' participation, reducing opportunities for higher level thinking and ignoring individual abilities and learning styles. Organizational practices in schools, such as inflexible class periods, fragmentation of subject matter, conventional instruction and evaluation processes, impede students' academic and social progress. Students were motivated to focus on what appeared to be the most important topics or elements of the school curriculum, and had to reproduce them accurately. Many students fail to perceive themselves as successful learners. Prolonged academic failure and causal attributions could contribute to the onset of learned helplessness in students. Since students alone cannot change the adverse circumstances, those with repeated failure will develop learned hopelessness in school achievement.

Biggs (1992) also opines that assessment procedures in Hong Kong seem to create powerful backwash effects that are detrimental to teaching and learning. He observes that students in Hong Kong tend to adopt a surface approach to learning; they are motivated to focus on what appear to be the most important topics or elements, and how to reproduce them accurately. The surface approach is based on extrinsic motivation. Affectively, as Biggs (1988) argues, the student avoids personal meanings the task might have, tends to resent the time taken by the task, but worries about failing. He also provided evidence that students who use a surface approach feel negative about their learning, being bored, alienated and anxious. It may be predicted that students in practical schools are inclined to adopt a surface

approach to learning due to lack of interest in academic tasks.

Students in Hong Kong, socialized to value hard work and endurance, take more personal responsibility for their success and failure than their western counterparts. Hence, Hong Kong students are more likely to attribute their achievement outcomes to internal and controllable causes such as effort and study skills than to ability. Chinese cultural values which stress hard work and persistence coupled with a competitive learning environment may develop maladaptive motivational styles in students, especially those students who encounter repeated failures. Thus when studying students' motivation in practical schools, we may have to take into consideration the interaction of socio-cultural factors and motivational attributions. It may be argued that the socio-cultural and education context in Hong Kong may induce a maladaptive motivational style for students who are placed in practical schools. Due to past experience of their lack of social support from family or school, students in practical schools, having experienced repeated failures, are more likely to develop learned helplessness and to exhibit deficit behavioural clusters.

Teachers' Beliefs on Students' Motivation for Learning

Stipek (1998) has pointed out, "teachers' purpose is to improve classroom management, increase motivation or enhance learning; good teachers continually evaluate, fine-tune, and re-evaluate their practices" (p. 235). There is also considerable evidence showing that teachers' expectation of students' performance can function as 'self fulfilling prophecies' (Rosenthal and Jacobson, 1968; Brophy, 1983). A number of investigations

have also shown that teachers' expectancy effects are associated with other mediating processes such as teachers' attitudes and teachers' interaction with their students (Brophy and Good, 1974, Brophy and Evertson, 1976). Based on students' feedback, Weinstein (1989), found that children as young as first grade could perceive differences in the treatment of high and low achievers in the classroom.

Research on motivation has generated important implications for understanding the mediation processes of students' learning behaviours. As argued by Hickey (1997), teachers who aim at enhancing classroom learning and improving students' abilities should adopt a more pragmatic, integrated perspective on motivational and instructional theory. It is also assumed that when teachers stress meaningful learning and scaffold instruction, students will be motivated to reconsider their own understanding, meld prior knowledge and experience with new learning, and develop rich knowledge and thinking strategies to apply to real world problems (Blumenfeld, 1992). Teachers who understand children's underlying reasons for learning and their motivational styles are able to develop effective ways of enhancing children's motivation to learn. Moreover, as proposed by Rogers et al. (1992), the most effective way of enhancing classroom motivation, as displayed by pupils, was to develop intervention programmes for teachers that sought to change the ways in which teachers conceptualised the issues involved.

Teachers' beliefs about the nature of motivation and the ways in which teachers' conceptualize children's motivational behaviour can have an effect upon pupils' motivation. To enhance students' motivation in learning,

teachers in practical schools need to have a positive attitude towards their students' learning, and to develop intervention techniques which promote learning through their classroom teaching. There is a favourable teacher-class ratio and comparatively small class size in practical schools, in which interaction between teachers and students is emphasised. It may therefore be predicted that teachers in practical schools will have a different perception of their students' motivation. By adopting different teaching strategies and by applying other subtle aspects of teacher-pupil interaction, teachers in practical schools may have a positive influence on students' learning and may be able to help students to change the maladaptive motivation pattern.

The Effectiveness of Special Schools on Students' Motivation for Learning

Practical schools are a new type of special purpose school catering for children who lack interest in schooling. However, we have not found similar schools in other countries for this specific group of children that can be used as a comparison group. A limited amount of comparative evidence is available from studies on special schools for maladjusted children or children with learning difficulties. As proposed by Galloway and Goodwin (1987), the effects of the special school provision may be examined in two areas: whether they help their pupils make good educational progress and whether they could help them become independent of the special school, either by returning to ordinary school, or by successful entry into open employment (p. 57). Based on data available on effects of special schools for slow-learning and for disturbing children in terms of academic

progress, successful entry into open employment and return to mainstream schools, Galloway and Goodwin (1987) concluded that there is no support for the belief that placement of pupils with emotional and behavioural difficulties in special schools is likely to benefit children concerned (p.57). They argued that:

a) All kinds of special schools or units for disturbing pupils have a dismal record in returning pupils successfully to mainstream education; and

b) Slow-learning children tend to make better progress in ordinary schools than in special schools (p. 70).

Their conclusion was based on the arguments that the curriculum in special schools and units was usually more restricted than in ordinary schools and that the chances of spontaneous improvement were reduced by special placement since these children were unable to learn from realistic experiences in mainstream schools (Galloway and Goodwin, 1987, pp. 173-174).

In Hong Kong, people cannot easily distinguish the behaviour of maladjusted and unmotivated children. People would consider practical schools as a new type of school for maladjusted students of a milder kind who were nevertheless not fit for the mainstream education. The Board of Education recognizes that the functions of practical schools and special schools for maladjusted children were vague to school personnel and that they might only have seemed to clear to professionals such as educational psychologists and educational counsellors (Education Department, 1996, p. 145). In Hong Kong, 'maladjustment' generally refers to a behavioural response to an inappropriate situation, which is transient and can be

remedied with a change in environment. The term 'maladjustment' does not imply intrinsic problems and is not the same as its meaning overseas (Education Department, 1996, p. 149). As such, schools for maladjusted children cannot easily be categorically distinct from practical schools. As no research has been conducted to study the effectiveness of practical schools in Hong Kong, the only available evidence was in a consultancy report produced by Woodhouse (1994) based on his inspection of the education in the schools for maladjusted children. The following section will be a summary of the findings reported by Woodhouse (1994).

Studies on the Effectiveness of Special Schools for Maladjusted Children in Hong Kong

Based on an inspection of a number of special schools for maladjusted children in Hong Kong, Woodhouse (1994) provided a summary report on the range and quality of education for maladjusted children. In the areas of educational arrangement and curricular provision, he made the following remarks:

> *Several schools are attempting to maintain disparate curriculum to meet the differing needs of pupils who are at various stages of their educational career. This situation causes strain upon the teachers and resources, and may in time result in a deterioration of behaviour in the classroom... There is a commendable emphasis on the teaching of the basic subjects of Chinese, English and Mathematics... In most schools there are subjects that are not taught well, or not taught at all, because of a lack of subjects teachers. (pp. 8-9)*

These comments coincide with Galloway and Goodwin's (1985) view that special schools often do not provide a well-balanced and broad curriculum

to their pupils. It is worth noting that this has to some extent been addressed by the curriculum entitlement inherent in the national curriculum for England. Woodhouse also commented on the delivery of the curriculum in the special schools for maladjusted children in Hong Kong. He further noted:

> *Many classes are taught in a very traditional didactic manner that mirrors mainstream practice. However, this is a form of teaching that has generally had limited previous success for maladjusted pupils. Usually the pupils have considerable learning difficulties and poor attitudes towards work. Their self-esteem is low (p.10)*

It seems that teachers in special schools do not change their teaching strategies to fit the students' learning needs. When commenting on the classroom teaching, Woodhouse had the following views:

> *Pupils with emotional difficulties required a learning environment that is stimulating and rewarding, and in which they can have some sense of ownership. Unfortunately many classrooms are bleak and dispiriting places in which to learn. This is particularly so for secondary pupils... The traditional format of general purpose classrooms to which teachers bring subject resources each lesson does not enhance the learning opportunities for pupils (p. 11).*

He found that schools being inspected appeared to have good child/child, child/staff, and staff/staff relationship and the schools in some way could meet 'the emotional needs of their pupils'. Nevertheless, 'there was insufficient allowance made for age' and there was 'little progress in approach as the pupils move through the school' (p. 13). From the observation made by Woodhouse, it can be seen that special schools for maladjusted children have not taken into account the learning needs of

individual pupils when devising and delivering the curricular activities. There must be doubt about how far children with special need benefit from special school provision. Based on information collected by the author from the two practical schools with pupils who had completed 3-year secondary education in 1996/97, it was shown that about 73 % of the secondary 3 students chose to continue study in the senior forms of the mainstream secondary schools or technical institutions. However, about 55 % of these students dropped out within one-year of study in the ordinary setting. Data also showed that about 66 % of students in practical schools still lacked interest or could not cope with the ordinary school curriculum after attending practical schools. These figures indicate doubts as to whether education in practical schools improves the educational progress of their target students. Thus, the effectiveness of practical schools needs to be reviewed. The focus of this study is to examine whether practical schools enhance students' motivation towards school learning.

Motivational Behaviours of Students in Practical Schools

Based on the Report of the Task Group on Provision of Services for Maladjusted Children (1997) in Hong Kong, students in practical schools may exhibit one or more of the following behavioural characteristics similar to maladjusted children:

- demonstrating misbehaviour to draw the attention of teachers and peers.
- being a nuisance by reckless or inattentive behaviour.
- passive protest against teachers, e.g. failing to hand in assignments as required

- being unwilling to ask for help from teachers when facing emotional and academic difficulties
- losing interest in school subjects taught by teachers.
- being withdrawn or extremely quiet.
- self-blame/feelings of guilt.
- showing no response to others.

The main characteristics of students in practical schools may be similar to behavioural patterns of maladjusted students. They perform poorly in academic achievement due to perfunctory or incomplete homework, being inattentive in class, or even playing truant occasionally. Thus they may be more inclined to adopt maladaptive motivational styles in learning. They may no longer care about academic results because they reject the values promoted by the school. Repeated failure of these students may make them develop a feeling of helplessness and a low self-esteem. Thus a vicious circle of causality may appear: low achievement could cause low motivation, or vice versa. Besides studying students' motivation, this study will include an investigation of students' behaviour in practical schools based on teachers' perception, particularly regarding students' disruptive behaviour.

From the studies on students' motivation in Hong Kong, it may be presumed that the students' motivation in practical schools is likely to be similar to their counterparts in band 5 schools as both types of students are rooted in collectivistic culture rather than in individualistic orientation. Their attribution to academic performance is likely to be internal,

controllable, and global. They may attribute their academic failure to a lack of ability and even adopt a negative affect towards learning task. They may have a learned helpless attribution involving negative expectations of highly probable outcomes. They may be passive, with low persistence, unable to perceive opportunity to control outcomes, being sad and with a low self-esteem.

Research findings showed that academic failure, causal externality, and causal stability were all related to learned hopelessness and that low achievers were more prone to show learned hopelessness as they had a tendency to make more stable attributions to their academic failures and suffered more academic failures (Au, 1995b). Owing to their repeated failures, it may be assumed that students in practical schools and band 5 schools will exhibit maladaptive motivational styles, and there will be a high prevalence of learned helpless or even learned hopeless students in these schools.

The Scope of this Study

Students in practical schools often appear to lack interest in their studies and are unmotivated towards schoolwork. Their repeated failure experiences and frustration with their schooling may lead them to develop maladaptive motivational styles in their schoolwork. However, we have no knowledge of students' motivational behaviour in practical schools since the first practical school started its operation in 1993. This study aims to conduct an investigation of motivational behaviours of these students after being placed in practical schools. Accepting that motivation is a complex

concept, areas such as students' attribution to school success and failure, learning orientation towards school tasks, self-efficacy, perceptions of meaning of school education and motivational styles will be examined in this study.

A large number of studies have shown that parental motivational practices may mediate students' motivation and thereby affect students' academic performance. To gain a better understanding of the concept of learning motivation, family background variables, including parental occupation, educational level, parental support, housing condition, and number of siblings, will be collected for examination purpose.

Teachers in practical schools are already informed of the reasons for setting up these schools and the characteristics of their students. Hence, it may be assumed that teachers in practical schools will tend to adopt a positive attitude towards their students, which could be reflected in their perceptions of students' motivation and behaviour. Teachers in practical schools may adopt teaching strategies and behaviour management techniques that will be based on the needs of students. With the provision of additional resources in these schools, such as additional school social workers, supported with a better teacher to student ratio, offering a flexible curriculum including practical subjects, it could be argued that students' learning motivation would be enhanced in practical schools. It is therefore important to examine school factors such as teachers' perceptions of students' motivation and behaviour in order to obtain empirical evidence on these matters.

The purpose of setting up practical schools was to give students who were

unmotivated towards schoolwork a chance to continue their study in a way better suited to their interests and needs. Practical schools can be regarded as an administrative decision to create a new type of school for mildly maladjusted students who are not considered fit for the mainstream education. However, school personnel consider that these schools cater for students with emotional and behavioural problems. Students in practical schools may exhibit learning, motivational and development problems. On the other hand, band 5 schools are regarded as mainstream schools, which admit a large proportion of academically low achievers from the bottom 20% in their primary school academic performance. Compared with band 5 schools, there is greater stigma attached to practical schools. Practical schools are unpopular; both parents and students have rated them as a low priority in the Secondary School Places Allocation System.

Both types of schools admit a large number of students who are weak in academic attainment and have low motivation for study. Critics such as principals and school psychologists have asserted that students with severe behavioural problems have been admitted to practical schools and that the information from social workers and parents at the time of referral is withheld. There are no criteria of known reliability for referring so-called 'unmotivated' students to practical schools. It is therefore likely that there will be some overlap in student intake between practical schools and band 5 schools. Students in band 5 schools would constitute a useful group for comparison. Hence, this study will include a sample of band 5 students with a view to investigate whether students in practical schools adopt maladaptive patterns similar to or different from their counterparts in band 5 schools. Data collected from band 5 would also help in examining the

effectiveness of practical schools. It should be stressed that there is no intention of a matched comparison between students in practical schools and band 5 schools. It is likely that students in practical schools have more complex problems than students in band 5 schools. Moreover, both have a history of poor educational progress which is likely to be associated with maladaptive motivational styles. It could nevertheless be interesting to establish whether or not practical schools exert a greater influence than band 5 schools on the motivation of their students.

Hypotheses of This Study

Students' learning motivation is a complex concept. After reviewing a wide range of research in motivation and considering the student intake of practical schools, this study will address the following hypotheses:

Hypothesis I

Students' motivation in practical schools will be significantly different from their counterparts in band 5 secondary schools.

Hypothesis II

In their first year, students in practical schools will be found to adopt a maladaptive motivational style in learning; they will be inclined to adopt a learned helpless and even learned hopeless motivational style towards their school learning.

Hypothesis III

Students' motivation in practical schools is related to socio-psychological

factors in their family.

Hypothesis IV

Teachers in practical schools will hold a positive perception of their students' motivation.

Hypothesis V

Practical schools can enhance students' motivation towards learning when compared with band 5 secondary schools

Chapter Four

Methodology

Conceptual Framework of this Study

Motivation is a complex construct, there is no comprehensive model that can be used to explain its multifaceted nature. To examine students' motivation in practical schools, this research will be based on a wide range of theoretical constructs on motivation. These constructs include Weiner's (1992) causal attribution, Nicholls' (1989) framework on learning orientation, Seligman's (1975) learned helpless concept, and Bandura's (1997) self-efficacy theory. Abramson et al. 's (1989) theory on learned hopelessness and Nicholls & Lau's (1997) work on students' perceptions of meaning of school education will also be included. Moreover, this research will also include items on the examination of students' motivational styles in practical schools. As such, research previously carried out on students' motivational styles by a number of psychologists, such as, Seligman (1975, 1984), Dweck (1986, 1990), and Covington (1984 and 1992) and Galloway et al. (1998) will be drawn on for reference. The inclusion of different perspectives on motivational constructs is to ensure a thorough examination of students' motivation for learning in practical schools.

To investigate family variables in relation to students' motivation, this study will draw on Epstein's (1989) family structure framework (TARGET), i.e. task (T), authority (A), reward(R), grouping (G), evaluation (E) and time (T), in the design of a questionnaire. The review of studies on students' motivation for learning suggests that teachers' perceptions of students' motivation and behaviour will inevitably affect their interaction

with their students, which in turn, affect students' motivation and learning. This research, therefore, will investigate teachers' perceptions of their students' motivation and classroom behaviour in practical schools.

Galloway et al. (1996,1998) argued that differences between school subjects in motivation might be substantially greater; they provided evidence of a greater prevalence of maladaptive motivational styles in English comprehension than in mathematics irrespective of age, gender, ethnic group and non-verbal reasoning ability. In view of the time constraint of this study, it will only collect the available data of those students who had taken the Hong Kong Attainment Test (HKAT) in two academic subjects, namely Chinese and mathematics. Since students in practical schools are not required to take the HKAT because academic subjects are not so emphasised in their school curricula, this study will be based only on examination data collected from the sample students in band 5 schools.

It may be argued that students in practical schools will adopt undesirable attributions for success and failure owing to their past failure experiences. After success, students in practical schools may be inclined to make external attributions (for example, luck and easy task), whereas internal causes (for example, lack of ability and effort) may appear to contribute to failure. These students are likely to have a tendency to attribute their failures to internal, stable, controllable, and global causes. After repeated failure experiences in school learning, these students may have lower self-perceived capabilities. The outcome of their reactions towards school tasks will be a lack of persistence, avoiding achievement tasks, exhibiting helplessness/hopelessness across school tasks, and having a decreased

self-efficacy. They may have a negative attitude towards school learning. However, if we assume that teachers who teach in practical schools will have a better understanding of their roles in helping students with learning problems, we could expect them to hold positive attitudes and adopt effective teaching strategies in maintaining or even enhancing students' motivation. Hence this study will examine whether practical schools can effectively enhance students' motivation.

Design of Research Method

Hayes (2000) considered that quantitative analysis can give us information about meanings and implications while some forms of qualitative analysis may provide richness of meaning by a process which uses numbers at some stage (p. 230). There are a number of different techniques that can be used to collect data from target students, ranging from case studies, ethnological observations, quasi-experiment, and interviews to questionnaire survey. Ethnography is typically concerned with a single or a small number of cases or ranges of situations. Case studies and ethnography are considered valuable ways of gaining insight into a research type and offer opportunity for in-depth exploration of an issue. However, qualitative research methods usually take a relatively unstructured approach to data collection and require a lot of time to explore the research topic. In view of the time constraints and the need for a broad based investigation of practical school pupils' motivation, only the widely used technique of a questionnaire survey is adopted.

Two questionnaires, one for students and one for teachers, are designed to elicit responses from student and teacher subjects. The students'

questionnaire will include items related to varied motivational concepts, students' motivational styles and parental affective practices. The teachers' questionnaire will focus on teachers' perception of students' motivation and disruptive behaviours. Likert-scale ratings are employed in the design of both questionnaires. The questionnaires consist of a declarative statement accompanied by a five-point rating scale, ranging from strongly agree to strongly disagree.

This study will employ cross-sectional and longitudinal research methods in examining students' motivation. In the cross-sectional design, a sample of Secondary 1 (S.1) and Secondary 2 (S. 2) students from both practical and band 5 secondary schools will be asked to complete a similar questionnaire so as to see whether there are any differences in their motivation for learning. The purpose of including a sample of S. 1 and S. 2 students in this study is to investigate the possibility of changes in motivational behaviour due to varied school factors. The longitudinal study is carried out by asking the same cohort of S. 1 students to complete the students' questionnaire on two occasions at an interval of about six-months, one in the first term of the school year and the other in the second school term. The purpose of collecting students' responses on two different occasions is to see whether there are any differences in students' motivation over time. These data will assist in examining whether there is evidence that practical schools are effective in enhancing students' motivation.

The study will also include a comparative group, drawing a sample of students from band 5 schools. Both practical and band 5 schools admit students with weak academic performance, who may be likely to lose

interest in learning and become unmotivated towards schoolwork. When feeling frustrated with schooling, some may show disruptive behaviour in class and some may even drop out of school. Since there are no clear criteria for identifying students with motivational problems, it is likely that there will be a lot of common features in the motivational and behavioural problems exhibited by these two groups of students. The inclusion of students in band 5 schools as a comparison group may give insight into the study of students' motivation and will show whether there are any systematic differences in students' motivation for learning between practical and band 5 schools.

Sampling

The sample for this study will comprise students from S. 1 and S. 2 from two practical schools and two low-band secondary schools. Two practical schools admitting students with no interest in schooling, and two band 5 secondary schools* admitting students with weak academic achievement at the bottom 20% range screened by the Secondary School Placement Allocation (SSPA) scheme, will participate in this study. The same cohort of S.1 students will be required to complete the same students' questionnaire on two occasions.

*Note:

This system was revised to three bands in 2001. Until 2000, before their admission to secondary one, primary six students were graded in terms of five bands of performance based on the results of internal school assessment at primary 5 and 6 and the external scaling test- Academic Aptitude Test (AAT) for the Secondary School Places Allocation. Based on the internal school assessment and scaled by the external AAT, students were put into an order of merit for their academic attainments. The order of merits was divided into five equal bands, each consisting of 20 % of the total primary 6 students. Band 5 referred to those students at the bottom 20 % in the order of merit. Band 5 schools were those schools which admitted a large proportion of these students and had an average banding value ranged from 4.50 to 5.00.

In each school about 60 students, 30 S.1 and 30 S.2 students participated in this study. In addition, the principals of the participating schools were asked to invite 25 teachers in each school to complete the teachers' questionnaire on their perceptions of students' motivation and behaviour. The sample for this study will thus include a total of 120 S.1 and 120 S.2 students and 100 teachers. The details of the proposed student sample of this study are shown in Figure 4.1.

Figure 4.1. *The proposed distribution of number of students from each type of schools*

School Type	No. of schools	No. of students			
		Schools	Secondary 1	Secondary 2	Total
Practical Schools	2	School A	30	30	60
		School B	30	30	60
Band 5 Secondary Schools	2	School C	30	30	60
		School D	30	30	60
Total	4		120	120	240

Research Instruments

This research is based on a survey using self-developed questionnaires for students and teachers. Since there is no single motivation theory that can be used to illustrate the students' motivation in practical schools, this study will include a wide range of motivational concepts in the construction of the students' questionnaire and the teachers' questionnaire. Details of the instruments are given below:

Students' Questionnaire

A 70-item questionnaire based on a five-point Likert scale that ranged from

5 (strongly agree) to 1 (strongly disagree) was developed following a review of a wide range of motivational theories and research. It included 17 motivational constructs drawn from prominent motivational theorists. As an aid to the reader in interpreting subsequent results, the allocation of each item into the 17 motivational dimensions is illustrated in Table 4.2.

Table 4.2. *The 17 dimensions of students' motivation according to the meaning of each items*

	Motivational Dimensions	Item No.	Item Content
1	Attribution of success to external factors	No. 1	When I do well in school, it is because the teacher explains things well.
		No. 8	When I do well in school, it is because the schoolwork is easy to understand.
2	Attribution of success to internal factors	No. 12	When I do well in school, it is due to my good luck.
		No. 20	When I do well in school, it is because of my own effort.
		No. 54	I am successful in schoolwork because I am smart.
3	Attribution of failure to internal factors	No. 4	When I do poorly in school, it is because I am not smart.
		No. 10	I fail in school subjects because I am lazy.
4	Attribution of failure to external factors	No. 6	When I do poorly in school, it is because the teachers do not explain things well.
		No. 13	When I do poorly in school, it is because the schoolwork is hard.
		No. 23	When I do poorly in school, it is because teachers are biased against me.
5	Task-orientation/ Mastery orientation	No. 2	I try hard to make sure that I am good at my schoolwork.
		No. 22	I am always trying to do better in my schoolwork.
		No. 24	I enjoy trying to find the answer to a difficult problem.
		No. 27	I try hard at school because I am interested in my schoolwork.
		No. 37	I like to try to figure out how to do school assignments on my own.
		No. 66	I like hard work because it is a challenge to me.

6	Work avoidance	No. 3	I feel really pleased in school if I don't have to work hard.
		No. 26	I feel really pleased if the teacher doesn't ask me any hard questions.
		No. 31	I feel really please if I don't have to do any homework.
		No. 38	I feel really pleased if all the schoolwork is easy.
		No. 51	I could do better in my schoolwork but I am not prepared to try harder.
		No. 52	I feel really pleased if I don't have any tough tests.
7	Ego-orientation	No. 5	I like to be encouraged by others for my schoolwork.
		No. 39	I try to do well at school to please my teachers.
		No. 42	It is important to me to do things better than my classmates.
		No. 44	I work hard at school to bring honour to my parents.
		No. 65	I feel really pleased if I score higher than other students.
		No. 70	When I do well in school subjects, I feel much pride.
8	Learned helplessness	No. 14	Even if I tried harder, I would still not succeed in doing well on some school subjects.
		No. 32	There is no point in working hard at school because it makes no difference in getting good result.
		No. 49	In school academic subjects, there is not much I can do to improve my performance.
		No. 60	I think there is not much I can do to change things in my life.
9	Learned hopelessness	No. 7	I feel hopeless in my schoolwork.
		No. 48	I never experience any academic success and there is no reason to believe I will get the breaks in the future.
		No. 55	Unfortunate events happen to me that I cannot control.
		No. 58	Most of the bad events that have happened to me have been a result of my bad luck.
10	Negative emotion	No. 21	I am worried about not doing well in my schoolwork.
		No. 33	I have a guilty feeling because I cannot do well in schoolwork
		No. 45	My school results make me feel inferior.
		No. 47	I feel ashamed because I cannot do well in schoolwork.

11	Lack of self-efficacy	No. 28	I feel nervous when I take school examinations.
		No. 36	I find it difficult to keep my mind on schoolwork.
		No. 63	I cannot cope with learning in most school subjects.
		No. 64	My schoolwork seems to be so full of difficulties that I think I have to give up.
		No. 67	I find it difficult to organise my study time effectively.
12	Self-worth motive	No. 15	I always leave my homework to the last minute.
		No. 16	When I do poorly in school subjects, it is because I am not interested in them.
		No. 30	I fail in school subjects because I do not make a serious attempt in schoolwork.
		No. 62	I get low grades in school examinations because I do not study the right thing.
13	Extrinsic value as purpose of education	No. 25	School should prepare us to get a better job.
		No. 29	School should teach us to compete with others.
		No. 34	School should teach us to respect our parents.
		No. 69	School should prepare us to earn more money.
14	Intrinsic value as purpose of education	No. 9	School should help us keep working in spite of obstacles.
		No. 40	School should prepare us to be useful to society.
		No. 43	School should teach us to judge clearly about right and wrong.
		No. 53	School should help us understand new technology and how it works.
15	Parental support	No. 11	My parents often help me to complete the homework.
		No. 35	My parents always encourage me to participate in school extra-curricular activities.
		No. 46	My parents always praise me for my good academic results.
		No. 50	My parents expect me to complete secondary schooling.
		No. 56	My parents always tell me that I must do well at school if I am to succeed in later life.
		No. 61	My parents often discuss with me the importance of having a schedule for doing homework.

16	Positive attitude towards schooling	No. 17	I feel confident in my schoolwork.
		No. 19	I feel joyful attending this school.
		No. 57	I can concentrate for the whole class period.
		No. 59	My school life is full of things that keep me interested.
17	Negative attitude towards schooling	No. 18	When I am in this school, I usually feel frustrated.
		No. 41	I generally find lessons rather dull.
		No. 68	I wish to get out of schoolwork as soon as possible.

The following theoretical constructs were included in the 17 motivational dimensions: Weiner's (1992) attributional theory, Nicholls' (1989) motivational orientation, Lau and Nicholls' (1997) students' perceptions of the meaning of school education, Seligman's (1975) model of learned helplessness, Abramson's (1989) framework of learned hopelessness, Bandura's (1998) self efficacy theory, Covington's (1984, 1996) 'self worth' motive, and concepts of intrinsic motivation and extrinsic motivation (DeCharms, 1976; Dweck, 1982, 1986). This study will also make reference to other research on students' motivational styles, such as McInerney et al. (1997), Craske (1988); and Leo and Galloway (1994). Items on parental affective patterns based on Epstein's (1989, 1994) school-like-family model will also be included. The motivational concepts covered in the questionnaire are listed below:

i.) Attribution to success and attribution to failure:

These items are based on Weiner's (1992) attribution theory that individuals naturally seek an understanding of why events occur, especially when the outcome is important or unexpected. From

Rotter's single internal-external locus of control dimension of attribution, Weiner further developed three separate dimensions: stability, control and globality. The questionnaire included four items on testing students' attribution to success and four items on attribution to failure, examples of these items are:

- When I do well in school, it is because the teacher explains things well.
- When I do poorly in school, it is because I am not smart.

ii.) Intrinsic motivation (including task orientation and mastery learning):

These items are based on Nicholls' (1985 & 1989) concepts of students' task orientation towards school work and DeCharms' (1976) study on 'origin-like' and 'pawn-like' motivational styles. According to Nicholls, task-oriented students will set themselves a goal to master the task with greater understanding and will regard the acquisition of new tasks as an end in itself. DeCharms (1976) also found that 'origin-like' people's actions originated from within themselves. Theorists on intrinsic motivation believe that humans are innately disposed to seek opportunities to develop competence, to seek novel events and to engage in activities for their own sake (Deci & Ryan, 1985; Lepper et al., 1989; Csikszentmihalyi et al., 1989). Examples of these items are:

- I enjoy trying to find the answer to a difficult problem.
- I like hard work because it is a challenge to me.

iii.) Extrinsic motivation:

These items are based on studies suggesting that some individuals who engage in activities to achieve rewards or to please other persons, or because of external constraints (DeCharms, 1976; Deci & Ryan, 1990). Lau & Nicholls' (1997) ego-orientation goals can be regarded as externally-controlled behaviour. Its objective is to demonstrate high ability in relation to others or to conceal their low abilities. Ryan and Deci (2000) also argue that students can perform extrinsically motivated behaviours with resentment, resistant, and disinterest or, alternatively, with an attitude of willingness that reflects an inner acceptance of the value or utility of a task. Examples of these items are:

- It is important to me to do things better than my classmates.
- I work hard to bring honour to my parents.

iv.) Work avoidance:

These items are based on Nicholls' (1989) third construct of students' task orientation towards schoolwork. Some students appear alienated from schoolwork and seek to avoid it. These items are also related to Atkinson's (1964) achievement motivation theory. Some individuals, due to the fear of failure, tend to avoid achievement tasks. Examples of these items are:

- I feel really pleased in school if I don't have to work hard.
- I could do better in my schoolwork but I am not prepared to try harder.

v.) Learned helplessness:

These items are based on Seligman's (1975) 'learned helplessness' concept. Some individuals will develop a belief that there is nothing they can do to avoid failure and that rewards are not contingent to their behaviour. According to Dweck (1986) and Galloway et al. (1998), this is one of the maladaptive attributional patterns. Examples of these items are:

- Even if I tried harder, I would still not succeed in doing well on some school subjects.
- In school academic subjects, there is not much I can do to improve my performance.

vi.) Learned hopelessness:

According to the 'learned hopelessness' theory (Abramson et al. 1989), learned hopeless symptoms will occur when one anticipates that highly desired outcomes will not occur or that highly aversive outcomes will occur (a negative outcome expectancy), together with an expectancy that one cannot control the outcomes (a helplessness expectancy). As predicted by Abramson et al. (1989), individuals who characteristically attributed negative life events to internal, global and stable causes tend to perceive themselves as helpless in the presence of negative events, which in turn develop their helpless deficit. Examples of these items are:

- I feel hopeless in my schoolwork.
- Unfortunate events happen to me that I cannot control.

vii.) Self-worth:

These items are based on Covington's (1992) 'self worth' motive. Students who used insufficient efforts might have high anxiety that would inhibit their performance. The anxiety could also bring into play self-defensive mechanisms by the reduction of effort. Covington's work indicated that some students might use defensive strategies in order to protect self-esteem against the possible or anticipated effects of failure. Students will try to protect a sense of their own ability by using a number of self-protective strategies, such as procrastination, setting unattainable goals, publicly admitting personal weakness or handicap. Examples of items are:

- When I do poorly in school subjects, it is because I am not interested in them.
- I always leave my homework to the last minute.

viii.) Self-efficacy:

These items are based on Bandura's (1997) theory that individuals' belief in their ability to do well in a task will determine their level of motivation. It will be reflected in how much effort they will exert in a task and how long they will persevere in the face of obstacles. Examples of these items are:

- I cannot cope with learning in most school subjects.
- My schoolwork seems to be so full of difficulties that I have to give up.

ix.) Intrinsic and extrinsic value of school education:

Nicholls (1989) showed that meanings students hold about the aims of school were associated with their motivational orientations towards school tasks. Students who believed that school should enhance their chances of gaining wealth and status were the mostly likely to express academic alienation and leastly likely to express task-oriented motivation and satisfaction with school. To investigate the relevance of this to students' motivation, this study will include items to assess students' perceptions of the purpose of schools. Four items on extrinsic values are concerned with how the school helps students to strive for individualistic and materialistic aims while another four items are related to intrinsic values of school education. Examples of these items are:

- School should prepare us to earn more money.
- School should teach us judge clearly right or wrong.

x.) Motivational support at home:

A large amount of evidence has shown that family background is associated with children's school success (Plowen Report, 1967; Coleman, 1966; Marjoribanks, 1997). Research has also shown that parental motivational practices at home are related to children's motivational patterns (Grolnick et al. 1991; Gottfried et al. 1994; Hokoda & Finchamn 1995). Epstein (1989, 1994) advocated that the family should reinforce the importance of school, and that homework and activities would build students' skills and feelings of success. This part of questionnaire includes 6 items to examine

students' perception of parental support for their school learning. Examples of these items are:

- My parents often praise me for my good academic results.
- My parents always tell me that I must do well at school if I am to succeed in later life.

xi.) Emotional reaction:

Motivation theorists (Weiner, 1984, 1992; Covington, 1998; Stipek, 1998) have pointed out that attributional dimensions also play an essential role in emotion. Weiner (1984, 1992) showed that a number of affects such as prides, anger, guilt, shame, hopelessness, are related to causal dimensions. Covington (1998) argued that ' the driving force behind all noteworthy accomplishment in school and beyond is emotional anticipation' (p.33). This questionnaire will include items to examine students' affect and feelings, example of which are:

- My school results make me feel inferior.
- I have a guilty feeling because I cannot do well in schoolwork.

xii.) Satisfaction with school learning:

School factors exert important influences on students' learning and motivation and teachers should think about the most successful ways to motivate students to learn. Galloway et al. (1998) argue that schools factors are particularly important for pupils with low achievement (p.145). Spaulding (1992) argued that ' a teacher who wants to increase their students' intrinsic motivation for academic endeavours must learn how to create academic environments that

promote students' perception of both competence and control' (p.9). Substantial changes in student motivation and learning require a substantial change in the way in which schools organise students' learning activities and teachers organise teaching strategies. This questionnaire will include items on the investigation of students' perceptions of school atmosphere and their sense of belonging towards school. Examples of these items are:

- I feel joyful attending this school.
- My school life is full of things that keep me interested.

Teachers' Questionnaire

A 40-item questionnaire for teachers which includes 25 items adopted from Leo & Galloway (1994) for identifying pupils' motivational styles and 15 items adopted from Fraser (1994) and Cohen (1976) for examining teachers' perception of students' motivation and behaviour will be used (see English version of teachers' questionnaire at Appendix IV and Chinese version at Appendix V). The main purpose is to examine teachers' perceptions of students' motivation and disruptive behaviours. Contents of the questionnaire include items on intrinsic motivation (e.g. Many students show interest in their studies.), maladaptive motivational styles such as learned helplessness (e.g. Many students are unwilling to ask for help from teachers even when help is needed.), hopelessness (e.g. Many students in the class give up or won't try in the belief that they lack the ability to tackle the task.), work avoidance (e.g. In academic areas, many students do not try hard to improve their performance), Self-worth (e.g. Many students make excuses for not completing schoolwork.) and

teachers' teaching strategies (e.g. I aim to use encouragement in my teaching and focus on students' strengths.). The questionnaire also includes 15 items on teachers' report of the number of students who exhibited disruptive behaviours in a week interval. Teachers were asked to state the numbers of students who had shown each behavioural pattern in the previous week on a Likert-scale ranging from none to 10 or more.

Measures of Students' Academic Attainment

Schools will also be requested to provide the Hong Kong Attainment Test results on two academic subjects of Chinese and Mathematics of the sample students in June 2000 after these students have taken the tests as required by the Education Department. It is a standardised test adopted by the Hong Kong Education Department to investigate students' academic standard in the territory.

Procedures

This study was carried out using the following procedures:

Construction of Questionnaires

a) Students' questionnaire

Based on a wide range of motivational theories, a 75-item student' questionnaire, written in English, was first drafted in March 1999. After several revisions, a final version of the English questionnaire was developed. Since English is not the native language for most Hong Kong students, it is necessary to translate the English version

of the students' questionnaire into Chinese language. After going through the consultation process with the translation officer of the Education Department and a professor from the City University of Hong Kong in the field of Educational Psychology, a Chinese version of the students' questionnaire was finally produced. A preliminary study was piloted to see whether the items of the questionnaire were reliable in testing the students' motivation. After two successive trials and further revisions of the drafted questionnaire, a final English version with 70 items of the students' questionnaire was developed (Appendix II). The final version of the Chinese questionnaire, after further refinement and revision to match the meaning of the English questionnaire, used in this study is attached at Appendix III. The categorisation of the 70-item questionnaire into 17 motivational dimensions is detailed in Table 5.7.

b) Teachers' questionnaire

With reference to a number of studies on students' motivation (Leo & Galloway, 1994; Fraser, 1994; and Cohen, 1976), an English version of the teachers' questionnaire was designed (Appendix IV) and then translated into Chinese language (Appendix V) using the procedures similar to students' questionnaire.

Pilot Study

Two pilot studies were conducted: the first one was carried out in Early May 1999 and the second was conducted in Early October 1999. The

objective of the pilot studies was to establish whether the instruments designed by the author were suitable for testing the hypotheses, and to examine the reliability and validity of the instrument. The first pilot was conducted by drawing a sample of 29 S. 1 students from a band 5 secondary school and 39 primary six students from a primary school not included in the main study. The students were required to complete a 75-statement questionnaire in about 35 minutes during a class period. The 75-statement questionnaire was based on a 5-point Likert-scale in relation to motivational areas such as achievement goals, attitudes to schools, purposes to schooling, attributions to success and failure, parental support, self-efficacy, etc. It was found that the Likert-type questionnaire had an internal consistency reliability of Cronbach's Alpha 0.81. Students took about 30 minutes to complete the questionnaire.

After the first pilot study, five items of the questionnaire which had low inter-correlations were discarded. The 75-item questionnaire was therefore reduced to 70 items. A second pilot study was carried out in October 1999 in two other schools not included in the main study, one practical school with a sample of 29 S.1 students and one band 5 school with 31 S.1 students. The purpose was to see whether students could understand the meaning of the revised 70-item questionnaire and complete the questionnaire within a 30-minute class period. A brief discussion with the students showed that they had no difficulties in understanding the wording of the questionnaire. An analysis of the data showed that the questionnaire had an internal consistency reliability of Cronbach's Alpha 0.80.

30 teachers, 15 teachers from each school, were invited to complete teacher questionnaires with 25 statements related to their perceptions of students'

motivation based on a Likert scale and 15 items on their perceptions of the incidence of disruptive behaviours based on a 5-point scale with ranges of percentages, such as below 20%, 21-40 %, 41-60%, 61-80 % and above 80 %. An analysis showed that the teachers' questionnaire had a reliability of Cronbach's Alpha 0.89. As the 5-point scale based on ranges of percentages was vague, it was decided to revise the rating scale from a 5-range percentage to ranges based on number of students exhibited those disruptive behaviours in the previous week, i.e. 10 students or more, 7 to 9, 4 to 6, 1 to 3 and none.

The Conduct of the Research

a) The students' questionnaire was administered in the four sample schools in November 1999. School principals in each participant school were requested to identify one S.1 class and one S.2 in their school. Students of these two classes were asked to complete the questionnaire in one of their class periods and teachers of that class period were asked to administer the questionnaires.

b) 30 teachers from each school were also requested to complete the teachers' questionnaire in November 1999.

c) The cohorts of S.1 students who had previously completed the students' questionnaire were requested to complete the same questionnaire with the order of the questions reshuffled in the second school term in April 2000.

d) The results of students' attainment performance in subjects of Chinese and Mathematics of the Hong Kong Attainment Test were collected from schools in June 2000.

Statistical Analysis

Data collected from the feedback on students' and teachers' questionnaires were analysed using the 'Statistical Package for the Social Sciences (SPSS), an example of using SPSS for data analysis can be found from authors such as Foster (2001). With reference to statistical techniques exemplified in a number of texts (Spector, 1994; Mertens, 1998; Hopkins et al., 1996), the following statistics were used to analyse the data:

a) Descriptive statistics such as frequency tables and cross-tabulations were used to illustrate the characteristics of student and teacher samples.

b) To ensure that the data are consistent across the parts of the measurement, the Cronbach's Alpha coefficient was calculated in this study. Reliability can also be defined as the ratio of variance of the true score to the variance of the actual record score (Bourgne & Clark, 1994, p.73). The Cronbach's Alpha coefficient was chosen to test the internal consistency reliability of the student's and teacher's questionnaire as it assumes the equivalence of all items. It is a useful technique which is generally considered as the most appropriate type of reliability test for Likert-type questionnaire survey in which there is a range of possible answers for each item (Huck and Cormier, 1996). Correlational statistics, such as Pearson's Product Moment Coefficient, were used to describe the strength and direction of relationship between different dimensions of students' motivation, including their relations with parental affective support, teachers' perception of students' motivation

and behaviours, and students' attainment performance. However, we must be aware that correlations, which refer to the measures of association, do not necessarily indicate a causal relationship between variables (Cohen and Manion, 1994, p. 132).

c) Inferential statistics such as t-test and F-test in an Analysis of Variance (ANOVA) were used to determine whether there were any significant differences between different dimensions of students' and teachers' responses to questionnaires. ANOVA is a useful technique to determine whether the differences among variables of the sample are greater than would be expected by chance alone. When the difference between three or more sample means was significant, Tukey's test is used for multiple pair-wise comparisons.

d) One of the techniques of factor analysis, the principal components analysis, was used to reveal the clusters of students' motivational responses. Factor analysis is a useful technique that can be used to analyse the inter-relationships within a set of variables. Factor analysis was used to address whether the observed correlations could be explained by the existence of a small number of hypothetical variables. It aims at constructing a few hypothetical variables, called factors, that are supposed to contain the essential information in a larger set of observed variables. The factors that are derived can reduce the overall complexity of the data by taking account of interdependencies among variables. Factor analysis is considered to be a multivariate method of data reduction (Reyment and Joreskog, 1993, p.71). The factor analysis is used to extract the main components of students' motivation in practical schools.

e) Since the ratings of responses from students and teachers in questionnaires by using Likert-scale are arbitrary, the difference in means between different situations and different samples may not be interpretable and meaningful. To decide 'the degree to which the phenomenon is present in the population' (Cohen, 1988, p.9), the effect size calculation is used. The effect size is used to express the magnitude of a 'difference in means in standard deviation units' (Hopkins et al., 1996, P. 211). According to Cohen (1988), an effect size of 0.20 is regarded as small, 0.50 is medium, and 0.80 is large. He further argued the terms 'small', 'medium', and 'large' are relative, not only to each other, but also to the area and content of the study and the research method being used (Cohen, 1988, p.25). In considering the sample size of over 200 subjects in this study, an effect size of 0.3 would have a power value of 0.75 while an effect size of 0.4 would have a power value of 0.95 at 0.01 significant level (Cohen, 1988, pp.28-29). For reference, the difference with an effect size of over 0.2 would be reported in this study (i.e. a power value of 0.37 at 0.01 significant level).

Chapter Five

Results

Part I. Students' Questionnaire on Motivation for Learning

Participating Schools and Students

A total of 4 schools, including 2 practical schools and 2 band five schools, participated in this study. Of the 2 practical schools, one is located at the western part of the New Territories of Hong Kong, School A, and the other is located at the Kowloon region, School B. One of the band five schools is located in the western part of the New Territories, School C, and the other is located on the Hong Kong Inland, School D. Of the total of 207 students, 86 were from practical schools and 121 were from band 5 schools. The total of 108 S. 1 students and 99 S. 2 students completed the first motivation for learning questionnaire in the middle of the first school term in late November or early December 1999. There were 126 male students and 81 female students, of whom 189 (92.8 %) were between the age of 13 and 15. The same motivation for learning questionnaire was administered to the same cohort of S.1 in the second school term in May 2000; 102 of them successfully completed the questionnaire. Information about the participating students at each school is shown in Tables 5.1, 5.2 and 5.3.

Table 5.1. *No. of students by classes and schools*

	Practical School		Band Five School		Total No. of Students
	School A	School B	School C	School D	
S. 1	21(10.1%)	25(12.1%)	33(15.9%)	29(14.0%)	108(52.2%)
S. 2	14(6.8%)	26(12.6%)	25(12.1%)	34(16.4%)	99(47.8%)
Sub-total	35(16.9%)	51(24.7%)	58(28.0%)	63(30.4%)	
Total	86(41.6%)		121(58.4%)		207(100%)

Table 5.2. *No. of students by sex and school*

	Practical School		Band Five School		Total no. of students
	School A	School B	School C	School D	
Male	25 (12.1%)	35(16.9%)	32(15.5%)	34(16.4%)	126(60.9%)
Female	10(4.8%)	16(7.7%)	26(12.5%)	29(14.0%)	81(39.1%)
	35(16.9%)	51(24.6%)	58(28.0%)	63(30.4%)	207(100%)
Total	86(41.6%)		121(58.4%)		

Table 5.3. *Age distribution of the students*

Age	No. of students	Percentage	Cumulative %
12	4	1.9 %	1.9 %
13	73	35.1 %	37 %
14	95	45.7 %	82.7 %
15	21	10.1 %	92.8 %
16	4	1.9 %	94.7 %
17	1	0.5 %	95.2 %
18	1	0.5 %	95.7 %
Unknown	8	3.9 %	100 %
Total	207	100 %	

Family Backgrounds of the Participating Students

Table 5.4 illustrates the family background of the sample students; it shows that most students were from working class families, 76.8 % of them having fathers in manual work or unemployed, 65.1 % of them with mothers being housewives or doing manual jobs. More than 80 % of students had parents whose education standards were at secondary level or below (i.e. 80.6 for fathers' and 82.6 % for mothers'). Over half of them were the only child in the family (13.5%) or had only one brother or sister (51.7%).

Table 5.4. *Family background of participating students*

Family Variables	Categories	No (%)
Father's occupation	Professional	10 (4.8%)
	Technical	34 (16.4%)
	Clerical	4 (1.9%)
	Manual	88 (42.5%)
	Unemployment/unknown	71 (34.3%)
	Total	207 (100%)

Mother's occupation	Professional	6 (2.9%)
	Technical	3 (1.4%)
	Clerical	12 (5.8%)
	Manual	43 (20.7%)
	Housewife	92 (44.4%)
	Unknown	51 (24.6%)
	Total	207 (100%)
Father's education	Primary level	74 (35.7%)
	Secondary level	93 (44.9%)
	Tertiary level	4 (1.9%)
	Unknown	36 (17.4%
	Total	207 (100%)
Mother's education	Primary level	75 (36.2%)
	Secondary level	96 (46.4%)
	Tertiary level	6 (2.9%)
	Unknown	30 (14.5%
	Total	207 (100%)
Number of siblings	No siblings	28 (13.5%)
	One	79 (38.2%)
	Two	61 (29.5%)
	Three	13 (6.3%)
	Four	13 (6.3%)
	Five	9 (4.3%)
	Six or more	4 (1.9%)
	Total	207 (100%)

The Measurement of Students' Motivation for Learning

Analysis of the 70-item Questionnaire

In order to investigate their motivation for learning, students participating in this study were required to complete a specially designed questionnaire. The student questionnaire consisted of 70 items based on a Likert-scale, rated from five to one (i.e. 5 for strongly agree, 4 for agree, 3 for not sure, 2 for disagree, 1 for strongly disagree). The first stage of data analysis consisted two alternative procedures. The first of these involved a principal components analysis of the 70 motivational items. The second involved an analysis of the 17 theoretically derived motivational dimensions. The

purpose is to see whether the 17 motivational dimensions based on theoretical framework can be a useful measure to investigate students' motivation for learning.

Principal Components Analysis

The 70 items were subjected to a principal components analysis using varimax rotation. The reliability was high, with an alpha of 0.88. The loadings of most variables on their corresponding factors were greater than 0.3. Although Kline (1994) had argued that loadings of 0.3 could be regarded as significant with at least 100 sample subjects (see p. 52), this study discarded those loadings less than 0.4 so as to see whether there were any main constructs derived from the students' questionnaire in the examination of students' motivation for learning. As a result, 7 components or factors were generated from the principal components analysis; these factors were categorised as work avoidance, intrinsic motivation, ego-oriented motivation, negative emotion, attribution to success, attitude towards schoolwork and attribution to failure (Table 5.5). Fifty of the seventy items were included in these factors. These 7 factors accounted for 41.64 % of the total variance explained. Maladaptive motivations, including work avoidance, negative emotion and self-worth, accounted for about 25 % of the total variance. Thus, the author only included those 50 items with higher loadings 0.4 or more for analysis purpose. These 50 items had an internal consistency reliability of Cronbach's Alpha 0.83.

Table 5.5. *Factor loading for principal components analysis with varimax rotation for the 70-item Students' motivational measures for all students (N=207)*

Item No.	Item Content	Component						
		1	2	3	4	5	6	7
	Work avoidance							
No. 31	I feel really please if I don't have to do any homework.	0.77						
No. 52	I feel really pleased if I don't have any tough tests.	0.72						
No. 38	I feel really pleased if all the schoolwork is easy.	0.72						
No. 68	I wish to get out of schoolwork as soon as possible.	0.68						
No. 41	I generally find lessons rather dull.	0.61						
No. 26	I feel really pleased if the teacher doesn't ask me any hard questions.	0.58						
No. 3	I feel really pleased in school if I don't have to work hard.	0.57						
No. 64	My schoolwork seems to be so full of difficulties that I think I have to give up.	0.53						
No. 36	I find it difficult to keep my mind on schoolwork.	0.48						
No. 23	When I do poorly in school, it is because teachers are biased against me.	0.44						
	Intrinsic motivation							
No. 24	I enjoy trying to find the answer to a difficult problem.		0.62					
No. 20	When I do well in school, it is because of my own effort.		0.60					
No. 66	I like hard work because it is a challenge to me.		0.57					
No. 22	I am always trying to do better in my schoolwork.		0.57					
No. 37	I like to try to figure out how to do school assignments on my own.		0.54					
No. 59	My school life is full of things that keep me interested.		0.53					
No. 17	I feel confident in my schoolwork.		0.53					
No. 2	I try hard to make sure that I am good at my schoolwork.		0.48					
No. 53	School should help us understand new technology and how it works.		0.46					
No. 57	I can concentrate for the whole class period.		0.45					
No. 1	When I do well in school, it is because the teacher explains things well.		0.41					

Ego-oriented motivation								
No. 44	I work hard at school to bring honour to my parents.			0.65				
No. 65	I feel really pleased if I score higher than other students.			0.62				
No. 70	When I do well in school subjects, I feel much pride.			0.60				
No. 40	School should prepare us to be useful to society.			0.58				
No. 5	I like to be encouraged by others for my schoolwork.			0.53				
No. 56	My parents always tell me that I must do well at school if I am to succeed in later life.			0.50				
No. 69	School should prepare us to earn more money.			0.49				
No. 43	School should teach us to judge clearly about right and wrong.			0.45				
No. 50	My parents expect me to complete secondary schooling.			0.44				
No. 25	School should prepare us to get a better job.			0.41				
Negative emotion								
No. 45	My school results make me feel inferior.				0.63			
No. 33	I have a guilty feeling because I cannot do well in schoolwork				0.61			
No. 21	I am worried about not doing well in my schoolwork.				0.60			
No. 47	I feel ashamed because I cannot do well in schoolwork.				0.60			
No. 4	When I do poorly in school, it is because I am not smart.				0.55			
No. 14	Even if I tried harder, I would still not succeed in doing well on some school subjects.				0.48			
No. 13	When I do poorly in school, it is because the schoolwork is hard.				0.46			
No. 49	In school academic subjects, there is not much I can do to improve my performance.				0.42			
Attribution to success								
No. 46	My parents always praise me for my good academic results.					0.66		
No. 54	I am successful in schoolwork because I am smart.					0.63		
No. 39	I try to do well at school to please my teachers.					0.42		

Attitude towards schoolwork								
No. 35	My parents always encourage me to participate in school extra-curricular activities.						0.55	
No. 27	I try hard at school because I am interested in my schoolwork.						0.49	
No. 28	I feel nervous when I take school examinations.						0.46	
No. 19	I feel joyful attending this school.						0.46	
No. 18	When I am in this school, I usually feel frustrated.						-0.45	
Self-worth motive								
No. 30	I fail in school subjects because I do not make a serious attempt in schoolwork.							0.65
No. 62	I get low grades in school examinations because I do not study the right thing.							0.61
No. 15	I always leave my homework to the last minute.							0.55
	Eigenvalue	6.11	5.27	4.55	4.44	3.04	2.98	2.77
	% of Variance Explained	8.71	7.52	6.50	6.35	4.34	4.26	3.96

Correlations between Causal Attributions and the Items related to Learned Helplessness and Learned Hopelessness

There was evidence in this study of strong correlations between attribution failure to ability and effort, together with their relationships with items on learned helplessness and learned hopelessness, the results are presented in Table 5.6. It was found that there was a significantly strong relationship between attribution failure to ability (Q.4) and effort (Q.10) ($r=0.16$, $p<0.05$). The students who perceived that their failure was due to lack of ability (Q.4) tended to experience difficulty in schoolwork (Q.13) ($r=0.41$, $p<0.01$). Furthermore, students who attributed their poor schoolwork to lack of ability (Q.4) and the difficulty of schoolwork (Q.13) tended to feel that there was not too much they could do to improve their performance

(Q.49) (r=0.31 and r=0.23, p<0.01) and felt hopeless in their schoolwork (Q.7) (r=0.40 and r=0.35, p<0.01). Furthermore, attribution failure to lack of effort had a strong correlation with items related to learned helplessness (Q. 49) (r=0.19, p<0.01) and learned hopelessness (Q.7) (r=0.19, p<0.01). In sum, there were strong relationships among items on causal attributions of failure to ability and effort, learned helplessness, and learned hopelessness for the sample students in this study.

Table 5.6. *The correlations between causal attribution and learned helplessness and hopelessness* (N=205)

	Q.4	Q.10	Q.13	Q.49	Q.7
Q4. When I do poorly in school, it is because I am not smart.	1	0.16*	0.41**	0.31**	0.40**
Q.10. I fail in school subjects because I am lazy.		1	0.14*	0.19**	0.19**
Q.13. When I do poorly in school, it is because the schoolwork is hard.			1	0.23**	0.35**
Q.49. In school academic subjects, there is not much I can do to improve my performance.				1	0.26**
Q. 7. I feel hopeless in my schoolwork.					1

Note: **p< 0.01; *p<0.05

Comparison of Students' Motivation between Practical and Band 5 Schools by using 7 Factors

The results of an analysis of the differences between practical and band 5 schools in the seven motivational dimensions derived from the principal components analysis using t-test and effect size are presented in Table 5.7. It was found that there were significant differences in two dimensions, namely, negative emotion (t=1.98, p<0.05) and self-worth motive (t=-2.11, p< 0.04). There were significantly small effect sizes of 0.26 in both

dimensions (with a statistical power* of over 0.80 at 0.05 significant level with sample size of 197 or more as indicated by Hinkle, 1998, p.652). Students in practical schools tended to have more negative emotion while students in band 5 schools were more likely to report self-worth motive.

Table 5.7. *Motivational Dimensions: Means, Standard Deviation, and Effect Size (N=205 for all schools; N=84 for practical school; N=121 band 5 schools)*

Motivational Dimension	Mean			Standard Deviation			t-test	Significant level	Effect size #
	All	Practical	Band 5	All	Practical	Band 5			Comparison means between practical and band five schools
Work avoidance	3.24	3.18	3.29	0.74	0.73	0.75	-1.08	NS	0.15
Intrinsic motivation	2.42	2.45	2.40	0.54	0.59	0.50	0.67	NS	0.08
Ego-oriented motivation	2.19	2.22	2.17	0.58	0.58	0.57	0.58	NS	0.09
Negative emotion	2.87	2.98	2.80	0.65	0.68	0.62	1.98	0.05	0.26 *
Attribution to success	3.14	3.03	3.22	0.77	0.89	0.67	-1.77	NS	0.21
Attitude towards schoolwork	2.69	2.69	2.70	0.57	0.65	0.51	-0.07	NS	0.02
Self-worth motive	3.04	2.90	3.14	0.82	0.92	0.73	-2.11	0.04	0.26 *

The effect size of each column is obtained by dividing the difference between the means of practical and band 5 schools by the standard deviation of practical schools of that dimension.

* The probability of not making a type II error (the failure to reject Null Hypothesis (Ho) when it is false) is termed statistical power. The power level represents the lowest acceptance power for any of potentially true hypothetical conditions that are considered to be meaningfully different from Ho. For example, a power level of 0.80 means that there would have an 80 % chance of rejecting Ho.

Analysis of the 17 Motivational Dimensions

The construction of the 70-item questionnaire was based on 17 motivational dimensions in accordance with the theoretical framework of motivation for learning as explained in the literature review. The Cronbach's Alpha for the 17 motivational concepts was 0.79. The reliability of the measurement was considered acceptable since a

Cronbach's Alpha of 0.7 or above is considered to be useful and adequate (Aron and Aron, 1999).

The Means, Standard Deviation, Correlation and Effect Size of the 17 Motivational Dimensions

The means, standard deviations and the effect sizes for each of the 17 dimensions are shown in Table 5.8. In addition the t-test was used for comparison between groups, and the effect size was employed in the data analysis. The calculation of effect size was expressed as the difference between the two sample means of students in practical and band 5 schools in terms of standard deviation units of the practical school sample. According to Hinkle et al. (1998), the effect size of 0.2 or above is considered significant with a power value of 0.80 at 0.05 level with a sample size of 197 or more (p. 652). With reference to the effect size, there were significant differences in the following five dimensions: attribution success to internal factors (effect size = 0.24), negative emotion (effect size =0.28), self-worth motivation (effect size =0.30), intrinsic value as purpose of education (effect size =0.23), and negative attitude towards schooling (effect size = 0.45). It was also found that all the individual items of the 17 motivational dimensions had high correlations with the whole scale of the questionnaire, ranging from 0.61 to 0.82. Hence, it could be concluded that the 17 dimensional scale would be a useful instrument to examine the motivational behaviour of students in practical and band 5 schools.

Correlations among the 17 Motivational Dimensions

When examining the correlations of the 17 motivational concepts from the entire sample of 205 students, the results showed that there were strong

relationships between motivational items (Table 5.9). The patterns were consistent as predicted, the adaptive motivation items were highly correlated with each other while the maladaptive motivation items had strong relationships among them. For example, attributing success to internal and external factors had a strong relationship with each other ($r=0.25$, $p<0.01$); both dimensions, respectively, had strong correlations with most of the positive motivational measures such as positive attitude towards schooling (0.34 and 0.48, $p<0.01$), parental support ($r=0.33$ and $r=0.42$, $p<0.01$), task-orientation ($r=0.30$ and $r=0.49$, $0<0.01$), ego-orientation ($r=0.36$ and $r=0.24$, $p<0.01$).

Moreover, attributing failures to internal and external factors were strongly correlated with each other ($r=0.48$, $p<0.01$). However, they had strong relationships with negative motivational measures respectively, for example, negative attitudes towards schooling ($r=0.27$ and $r=0.49$, $p<0.01$), work avoidance ($r=0.27$ and $r=0.41$, $p<0.01$), learned helplessness ($r=0.36$ and $r=0.37$, $p<0.01$), learned hopelessness ($r=0.43$ and $r=0.44$, $p<0.01$), negative emotion ($r=0.38$ and $r=0.20$, $p<0.01$), lack of self-efficacy ($r=0.38$ and $r=0.44$, $p<0.01$), and self-worth motive ($r=0.44$ and $r=0.28$, $p<0.01$). There was also a strong relationship between learned helpless and learned hopeless measures ($r=0.56$, $p<0.01$). Both learned helpless and hopeless measures had respectively strong relations with other maladaptive motivation measures such as negative emotion ($r=0.49$ and $r=0.57$, $p<0.01$), self-worth motive ($r=0.33$ and $r=0.40$, $p<0.01$) and negative attitude towards schooling ($r=0.39$ and $r=0.51$, $p<0.01$). The purpose of education, in terms of extrinsic and intrinsic values, had strong relations with each other ($r=0.48$, $p<0.01$), both of which were respectively related to the

task-oriented measures ($r=0.31$ and $r=0.41$, $p<0.01$), ego-oriented measures($r=0.48$ and $r=0.43$, $p<0.01$), and attributing success towards external factors ($r=0.19$ and $r=0.29$, $p<0.01$). Negative attitudes towards schooling had strong relationships with maladaptive measures such as work-avoidance ($r=0.58$, $p<0.01$), learned helplessness ($r=0.39$, $p<0.01$), learned hopelessness ($r=0.51$, $p<0.01$), and lack of self-efficacy ($r=0.50$, $p<0.01$). Positive attitudes towards schooling had strong relations with task-oriented measures ($r=0.65$, $p<0.01$) and parental support ($r=0.48$, $p<0.01$).

Table 5.8. *Student Questionnaire: Means, Standard Deviation, t-test, and Effect Size (N=205 for all schools; N=84 for practical school; N=121 band-5 schools)*

Categories	Items	Mean			SD			Correlation with the whole scale	T-test			Effect size *
		All	Practical	Band-5	All	Practical	Band-5		t-value	df	Significance.	Comparison means between practical and band five schools
Attribution success to internal factors	Nos. 12, 20, 54	3.08	2.99	3.15	0.61	0.68	0.55	0.82	-1.84	203	NS	0.24 #
Attribution success to external factors	Nos. 1, 8	2.68	2.58	2.74	0.82	0.87	0.78	0.71	-1.43	203	NS	0.18
Attribution of failure to internal factors	Nos. 4, 10	3.00	3.02	2.97	0.83	0.87	0.80	0.69	0.50	203	NS	0.06
Attribution failure to external factors	Nos. 6, 13, 23	3.49	3.51	3.47	0.70	0.76	0.65	0.63	0.44	203	NS	0.05
Task-orientation	Nos. 2, 22, 24, 27, 37, 66	2.46	2.48	2.44	0.56	0.59	0.54	0.79	0.48	203	NS	0.07
Work avoidance	Nos. 3, 26, 31, 38, 51, 52	3.17	3.12	3.21	0.82	0.80	0.83	0.79	-0.77	203	NS	0.11
Ego-orientation	Nos. 5, 39, 42, 44, 65, 70	2.52	2.49	2.54	0.63	0.62	0.63	0.72	-0.60	203	NS	0.08
Learned helplessness	Nos. 14, 32, 49, 60	2.91	2.93	2.90	0.66	0.72	0.61	0.72	0.35	203	NS	0.04
Learned hopelessness	Nos. 7, 48, 55, 58	3.10	3.07	3.11	0.74	0.74	0.74	0.79	-0.43	203	NS	0.05
Negative emotion	Nos. 21, 33, 45, 47	2.65	2.78	2.56	0.82	0.79	0.83	0.77	1.89	203	NS	0.28 #
Lack of self-efficacy	Nos. 28, 36, 63, 64, 67	2.98	3.04	2.94	0.65	0.66	0.64	0.79	0.99	203	Ns	0.15
Self-worth motive	Nos. 15, 16, 30, 62	3.00	2.86	3.10	0.75	0.81	0.70	0.61	-2.30	203	0.023	0.30 #
Extrinsic value as purpose of education	Nos. 25, 29, 34, 69	2.34	2.32	2.35	0.61	0.63	0.60	0.72	-0.37	203	NS	0.05
Intrinsic value as purpose of education	Nos. 9, 40, 43, 53	2.07	2.15	2.01	0.63	0.61	0.64	0.79	1.67	203	NS	0.23 #
Parental support	No s. 11, 35, 46, 50, 56, 61	2.69	2.73	2.65	0.58	0.63	0.55	0.72	0.91	203	NS	0.13
Positive attitude towards schooling	Nos. 17,19, 57, 59	2.57	2.57	2.57	0.67	0.71	0.65	0.78	-0.02	203	NS	0.00
Negative attitude towards schooling	Nos. 18, 41, 68	3.09	2.88	3.23	0.78	0.77	0.75	0.81	-3.27	203	0.001	0.45 #

* The effect size of each column is obtained by dividing the difference between the means of practical and band 5 schools by the standard deviation of practical schools of that dimension.

\# denotes effect size>0.20, p<0.05.

Table 5.9. *Pearson Correlation Matrix among motivational measures (N=205)*

	Category	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1.	Attribution of success to internal factors	1.00	0.25**	0.06	0.10	0.30**	0.15*	0.36**	0.06	0.05	0.05	0.14*	0.04	0.07	0.01	0.33**	0.34**	0.11
2.	Attribution of success to external factors		1.00	-0.08	-0.20 **	0.49**	0.15	0.24**	-0.14*	-0.12	0.10	-0.02	-0.05	0.19**	0.29**	0.42**	0.48**	-0.20**
3.	Attribution of failure to internal factors			1	0.33**	-0.01	0.27**	0.20**	0.36**	0.43**	0.38**	0.38**	0.44**	0.14	0.03	0.05	-0.10	0.27**
4.	Attribution of failure to external factors				1	-0.08	0.41**	0.05	0.37**	0.44**	0.20**	0.44**	0.28**	0.01	-0.09	-0.05	-0.16*	0.49**
5.	Task-orientation					1	-0.23**	0.29**	-0.21**	-0.12	0.22**	-0.07	-0.04	0.31**	0.41**	0.40**	0.65**	-0.20**
6.	Work avoidance						1	0.17*	0.43**	0.41**	0.05	0.50**	0.28**	0.07	-0.17*	-0.01	-0.23**	0.58**
7.	Ego-orientation							1	0.17*	0.19**	0.44**	0.32**	0.20**	0.48**	0.43**	0.34**	0.26**	0.19**
8.	Learned helplessness								1	0.56**	0.36**	0.49**	0.33**	0.20**	0.05	0.02	-0.14*	0.39**
9.	Learned hopelessness									1	0.43**	0.57**	0.40*	0.18*	0.01	-0.04	-0.16*	0.51**
10.	Negative emotion										1	0.36**	0.26*	0.34**	0.35**	0.17*	0.16*	0.12
11.	Lack of Self-efficacy											1	0.42*	0.25**	0.09	0.13	-0.12	0.50**
12.	Self-worth motive												1	0.19**	0.09	0.11	-0.06	0.29**
13.	Extrinsic value as purpose of education													1	0.48**	0.29**	0.22	0.04
14.	Intrinsic value as purpose of education														1	0.32**	0.33**	-0.07
15.	Parental support															1	0.48**	-0.15*
16.	Positive attitude towards schooling																1	-0.30**
17.	Negative attitude towards schooling																	1

Note: **p< 0.01; *p<0.05

The Conceptual Framework for Data Analysis

From the analyses of the students' questionnaire illustrated above, it can be seen that the motivational measurement developed by this author had high internal consistency reliability, together with strong correlations among items. It is considered a reliable tool in measuring students' motivation for learning, when used with unmotivated students in practical schools and academically low achievers in band 5 schools. The principal components analysis of the original 70 items revealed 7 factors, namely work avoidance, task orientation/mastery orientation, ego-orientation, negation emotion, attribution to success, attribution to failure, and attitude towards schools. It would have been justifiable to use these 7 factors as sub-scales for comparisons between variables, such as school types, students' sex, family variables, etc. However, it can be seen that the seven factors drawn form the principal components analysis overlapped with the 17 motivational dimensions derived from the theoretical framework. In considering that the sample size was borderline for use of the 7 factors as sub-scales and that only 50 of the 70 items were included in the 7 factors, this study will use the 17 motivational dimensions derived from the motivational theories for purpose of analysis so to explore the multifaceted aspects of students' motivation. The following sections provide the detailed analysis of data drawn from the students' responses to the questionnaires.

Students' Backgrounds in Relation to Motivation for Learning

Students' responses to the student questionnaire for the entire sample of 207 students were used in the analysis to see whether there were significant

differences in student motivation associated with students' biographical and family backgrounds. A one-way analysis of variance was used to test for differences between the mean ratings of the students in their responses to three or more groupings, for example, parental occupations, and parental education levels. Whilst the t-test was used to compare differences between two sub-samples, such as, students' sex, class level, school type, etc.

Motivation for Learning according to Students' Sex and Class Level

There was only one significant difference derived from the comparison between male and female students in their responses to the motivational measures, that is the task-oriented measure ($t=-2.51$, $p<0.013$ with an effect size of 0.34 and statistical power of 0.75 at 0.01 significance level). Girls were more likely to adopt a task-oriented motivational style towards schoolwork (Table 5.10). However, for the entire sample of students, there were no significant differences between S.1 and S. 2 students from cross sectional comparison in each motivational dimension (see Table 5.11).

Table 5.10. *Comparisons of mean scores using independent t-test for boys and girls in each dimension*

	Dimension	Mean (Standard Deviation)		t-value	df	Significance
		Boys (n=125)	Girls (n=80)			
1.	Attribution of success to internal factors	3.03 (0.62)	3.19 0.57)	-1.86	203	NS
2.	Attribution of success to external factors	2.61 (0.85)	2.78 (0.76)	-1.39	203	NS
3.	Attribution of failure to internal factors	3.01 (0.83)	2.97 (0.82)	0.37	203	NS

4.	Attribution of failure to external factors	3.52 (0.72)	3.43 (0.66)	0.87	203	NS
5.	Task-orientation	2.38 (0.59)	2.58 (0.49)	-2.51	203	0.013
6.	Work avoidance	3.13 (0.84)	3.24 (0.77)	-0.92	203	NS
7.	Ego-orientation	2.49 (0.60)	2.56 (0.67)	-0.86	203	NS
8.	Learned helplessness	2.96 (0.69)	2.84 (0.61)	1.192	203	NS
9.	Learned hopelessness	3.09 (0.77)	3.10 (0.69)	-0.03	203	NS
10.	Negative emotion	2.73 (0.81)	2.52 (0.83)	1.85	203	NS
11.	Lack of self-efficacy	2.93 (0.67)	3.06 (0.62)	-1.34	203	NS
12.	Self-worth motive	2.93 (0.80)	3.13 (0.65)	-1.96	203	NS
13.	Extrinsic value as purpose of education	2.30 (0.62)	2.41 (0.58)	-1.25	203	NS
14.	Intrinsic value as purpose of education	2.08 (0.62)	2.04 (0.64)	0.48	203	NS
15.	Parental support	2.64 (0.58)	2.77 (0.58)	-1.56	203	NS
16.	Positive attitude towards schooling	2.54 (0.67)	2.62 (0.68)	-0.89	203	NS
17.	Negative attitude towards schooling	3.05 (0.76)	3.16 (0.81)	-1.01	203	NS

Table 5.11. *Comparison of mean scores using independent t-test for S. 1 and S. 2 students in each dimension for the entire sample (N=207)*

	Dimension	Mean (Standard Deviation)		t-value	df	Significance
		S. 1 Students (n=106)	S. 2 Students (n=99)			
1.	Attribution of success to internal factors	3.07 (0.62)	3.11(0.59)	-0.42	203	NS
2.	Attribution of success to external factors	2.58(0.76)	2.78(0.88)	-1.73	203	NS
3.	Attribution of failure to internal factors	3.00(0.80)	2.99(0.86)	0.09	203	NS
4.	Attribution of failure to external factors	3.44(0.71)	3.54(0.68)	0.97	203	NS
5.	Task-orientation	2.40(0.60)	2.52(0.52)	-1.54	203	NS
6.	Work avoidance	3.19(0.83)	3.16(0.80)	0.24	203	NS

7.	Ego-orientation	2.52(0.65)	2.51(0.60)	0.10	203	NS
8.	Learned helplessness	2.88(0.67)	2.94(0.65)	-0.62	203	NS
9.	Learned hopelessness	3.01(0.77)	3.18(0.71)	-1.63	203	NS
10.	Negative emotion	2.63(0.83)	2.66(0.82)	-0.28	203	NS
11.	Lack of self-efficacy	2.94(0.69)	3.02(0.61)	-0.87	203	NS
12.	Self-worth motive	3.01(0.76)	2.99(0.75)	0.21	203	NS
13.	Extrinsic value as purpose of education	2.37(0.63)	2.31(0.58)	0.79	203	NS
14.	Intrinsic value as purpose of education	2.08(0.66)	2.05(0.60)	0.42	203	NS
15.	Parental support	2.63(0.60)	2.75(0.56)	-1.54	203	NS
16.	Positive attitude towards schooling	2.49(0.74)	2.65(0.59)	-1.69	203	NS
17.	Negative attitude towards schooling	3.09(0.83)	3.08(0.72)	-1.69	203	NS

Age and Family Background Variables in relation to Motivation for Learning

The significant differences were found between responses of different age groups of students to the 17 dimensions of motivation. Family background variables produced a few significant results. These are summarised in Table 5.12, Appendix VI provides details of mean ratings for each of the significant differences. It was also found that parents' occupation was related to students' attitude towards schooling. Students who had fathers holding clerical jobs were more likely to have a negative attitude towards schooling than those with professional jobs (i.e. $F=3.83$, $p<0.005$). Moreover, these students were more likely to exhibit learned hopeless motivation ($F=2.62$, $p<0.036$). Parents' education levels were also related to students' attitude towards schooling. Students whose parents' education was at secondary and tertiary level were more likely to adopt a negative attitude towards schooling ($F=7.60$, $p<0.003$ for father's education and $F=5.76$, $p<0.005$ for mother's education). Mother's education was also related to students' work avoidance strategy towards school task ($F=2.72$,

p<0.046). Parents whose education was at primary level were perceived as giving more support to their children than those with secondary education level (F=4.88, p<0.013 for father's education and F=4.06, p<0.018 for mother's education). It is possible that children of better-educated parents may feel under pressure to succeed and therefore may adopt work avoidance strategies and less positive attitude to schoolwork as a reaction against pressure from their parents. Students who had 4 siblings perceived themselves as having more parental support than their counterparts with 1 or no siblings (F=2.41, p<0.029). However, students' age level, level of class attended and housing conditions had no relationship with motivational responses.

Students' Motivation for Learning in Practical Schools

Sex, Age and Family Background in relation to Motivation for Learning

In order to gain a better understanding of students' motivation for learning, the data from the 86 students in practical schools were analysed separately. First, the data from two schools were combined in order to examine the relevance of sex, age and background variables. Table 5.13 shows that student's negative attitudes towards schooling were related to father's occupation (F=2.49, p<0.038), father's education (F=2.91, p<0.039) and mother's occupation (F=2.76, p<0.024). Older students at age 15 or more in practical schools tended to hold more negative emotion towards schooling (F=2.59, p<0.026). Students in S.2 level were more likely to have a feeling of lack of self-efficacy towards schoolwork (F=5.27, p<0.024). Students living in private housing were more likely to seek approval from others as indicated in their responses to the ego-oriented measures (F=4.12, p<0.006).

Table 5.12. Comparison of students' age, class level, and family background variables in relation to motivational dimensions for all students (N=207)

Categories	Age	Class attended	Father's occupation	Father's education	Mother's occupation	Mother's education	Housing	No. of siblings
Key	<12=1 13=2 14=3 15=4,>15=5	1=S. 1 2=S. 2	1=Professional 2=Technical 3=Clerical,4=Manual, 0=unknown	1=Primary 2=Secondary 3=Tertiary 0=unknown	1=Professional 2=Technical 3=Clerical,4=Manual, 5=Others, 0=unknown	1=Primary 2=Secondary 3=Tertiary 0=unknown	1=Public Housing 2=Private Housing (whole flat) 3=Private Housing (Part of a flat) 4=Others	0=0,1=1 2=2,3=3 4=4,5=5 >6=6
Attribution success to internal factors	NS	NS	NS	NS	NS	NS	NS	NS
Attribution success to external factors	NS	NS	NS	NS	NS	NS	NS	NS
Attribution of failure to internal factors	NS	NS	NS	NS	NS	NS	NS	NS
Attribution failure to external factors	NS	NS	NS	NS	NS	NS	NS	NS
Task-oriented	NS	NS	NS	NS	NS	NS	NS	NS
Work avoidance	NS	NS	NS	NS	NS	F=2.72 P<0.046,	NS	NS
Ego-oriented	NS	NS	NS	NS	NS	NS	NS	NS
Helplessness	NS	NS	NS	NS	NS	NS	NS	NS
Hopelessness	NS	NS	F=2.62 P<0.036	NS	NS	NS	NS	NS
Negative emotion	NS	NS	NS	NS	NS	NS	NS	NS
Self-efficacy	NS	NS	NS	NS	NS	NS	NS	NS
Self-worth	NS	NS	NS	NS	NS	NS	NS	NS
Extrinsic value of purpose of education	NS	NS	NS	NS	NS	NS	NS	NS
Intrinsic value of purpose of education	NS	NS	NS	F=2.80 P<0.037, 0>3	NS	NS	NS	NS
Parental support	NS	NS	NS	F=4.88 P<0.013, 1>2	NS	F=4.06 P<0.018,1>2	NS	F=2.41 P<0.035; 4>0,1
Positive attitude towards schooling	NS	NS	NS	NS	NS	NS	NS	NS
Negative attitude towards schooling	NS	NS	F=3.83 P<0.005, 3>1	F=7.60 P<0.003 1,2,3 >0	F=2.45 P<0.035	F=5.76 P<0.005 2,3>0	NS	NS
Remarks: Tukey test was used in multiple comparisons.								

Table 5.13. *Comparison of students' sex, age, class level and family background variables in relation to motivational dimensions for students in Practical Schools (N=86)*

Categories	Sex	Age	Class attended	Father's occupation	Father's education	Mother's occupation	Mother's education	Housing	No. of siblings
Key	1=male 2=Female	<12=1,13=2 14=3,15=4, >15=5	1=S. 1 2=S. 2	1=Professional,2=Technical, 3=Clerical,4=Manual, 5=Other,0=unknown	1=Primary 2=Secondary 3=Tertiary	1=Professional,2=Technical, 3=Clerical,4=Manual, 5=Other, 0=unknown	1=Primary 2=Secondary 3=Tertiary	1=Public Housing, 2=Private Housing (whole flat),3=Private Housing (Part of a flat),4=Others	0=0,1=1,2=2, 3=3,4=4, 5=5,>6=6
Attribution success to internal factors	NS	NS	NS	NS	NS	NS	NS	NS	NS
Attribution success to external factors	NS	NS	NS	NS	NS	NS	NS	NS	NS
Attribution of failure to internal factors	NS	NS	NS	NS	NS	NS	NS	NS	NS
Attribution failure to external factors	NS	NS	NS	NS	NS	NS	NS	NS	NS
Task-orientation	NS	NS	NS	NS	NS	NS	NS	NS	NS
Work avoidance	NS	NS	NS	NS	NS	NS	NS	NS	NS
Ego-orientation	NS	NS	NS	NS	NS	NS	NS	F=4.119 P<0.006,2>4	NS
Learned helplessness	NS	NS	NS	NS	NS	NS	NS	NS	NS
Learned hopelessness	NS	NS	NS	NS	NS	NS	NS	NS	NS
Negative emotion	NS	F=2.585 P<0.026,5> 2	NS	NS	NS	F=2.445 P<0.041	NS	NS	NS
Lack of self-efficacy	NS	NS	F=5.268 P<0.024,2>1	NS	NS	NS	NS	NS	NS
Self-worth motive	NS	NS	NS	NS	NS	NS	NS	NS	NS
Extrinsic value as purpose of education	NS	NS	NS	NS	NS	NS	NS	NS	NS
Intrinsic value as purpose of education	NS	NS	NS	NS	NS	NS	NS	NS	NS
Parental support	NS	NS	NS	NS	NS	NS	NS	NS	NS
Positive attitude towards schooling	NS	NS	NS	NS	NS	NS	NS	NS	NS
Negative attitude towards schools	NS	Ns	NS	F=2.485 P<0.038	F=2.911 P<0.039	F=2.763 P<0.024	NS	NS	NS
Remarks: Tukey test was used in multiple comparisons.									

Motivational Styles for Students in Practical Schools

Principal components analysis was carried out for the sample students in practical schools. Four components were generated from the factor analysis, which accounted for 63.74 percentage of variance explained. The first component was concerned with negative motivational behaviour, including measures such as hopelessness, lack of self-efficacy, self-worth, attributing failures to internal and external factors, negative emotion and learned helplessness. These factors accounted for 22.61 percentage of the total variance in students' learning motivation. The second component was related to those measures contributing to school success, which accounted for 18.09 % of the total variance, including measures such as task-orientation, positive attitude towards schooling, attributing success to external factors, and parental support. The third component was related to purpose of education, accounting for 12.41 % of the total variance, including measures such as intrinsic and extrinsic values as purpose of education, and ego-orientation. The fourth component was related to negative attitudes towards schoolwork, accounting for 10.63 % of total variance, including measures such as work avoidance attitude, attributing success to internal factors, negative attitude towards schooling. The loading, eigenvalue, and percentage of explained variance of each component are presented in Table 5.14. It can be seen that maladaptive motivation, including negative motivational behaviour and negative attitude towards schoolwork, accounted for about 33% of the total variance of the motivational variables.

Table 5.14. *Factor loading for Principal Component Analysis with Varimax Rotation for the Students Learning Motivation Measures of Practical School Students. (N=86)*

Measures on students' motivation for learning	Component			
Negative motivational behaviour				
• Learned hopelessness	0.73	-0.03	0.22	0.26
• Lack of self-efficacy	0.73	0.12	0.10	0.36
• Self-worth motive	0.70	0.16	0.13	-0.13
• Attribution of failure to internal factors	0.69	0.19	-0.03	0.04
• Attribution of failure to external factors	0.69	0.03	-0.12	0.31
• Negative emotion	0.66	0.26	0.27	-0.03
• Learned helplessness	0.61	-0.14	0.28	0.28
Factors contributing to school success				
• Task-orientation	0.13	0.80	0.25	0.04
• Positive attitude towards schooling	0.04	0.78	0.14	0.02
•				
• Attribution of success to external factors	0.03	0.75	0.05	010
• Parental support	0.25	0.73	0.17	0.04
Purpose of education				
• Extrinsic value as purpose of education	0.10	0.13	0.88	0.04
• Intrinsic value as purpose of education	0.28	0.32	0.73	-0.23
• Ego-orientation	0.09	0.36	0.67	0.35
Negative attitude towards schoolwork				
• Work-avoidance	0.34	0.05	0.01	0.77
• Attribution of success to internal factors	-0.03	0.58	0.09	0.60
• Negative attitude towards schooling	0.50	0.03	0.72	0.53
Eigenvalue	5.64	2.69	1.42	1.09
% of Variance Explained	22.61	18.09	12.41	10.63

Comparison of Family Background Variables between Two Practical Schools

It is known from school effectiveness research that schools of the same type can differ widely both in pupil intake and, when this is controlled, in responses of pupils. Hence, it was important to start by testing for differences between the two practical schools on family background variables. It was intended to see whether there were any significant differences in students' backgrounds between two practical schools. The t-test and one-way analysis of variance were used to analyse the data. The t-test showed that students from the two practical schools did not differ significantly in their family backgrounds (Table 5.15).

Table 5.15. Comparisons of mean scores for family background using independent t-test for two practical schools (N=84)

Family Background	Mean (Standard Deviation)		t-value	df	Significance
	Practical School A (n=35)	Practical School B (n=51)			
Father's occupation	3.0 (1.13)	3.11(1.15)	-0.301	40	NS
Father's education level	1.74(0.62)	1.72((0.46)	0.14	53	NS
Mother's occupation	4.59(1.00)	4.42(0.97)	0.56	48	NS
Mother's education level	1.64(0.58)	1.64(0.54)	-0.017	56	NS
No. of siblings	2.23(1.88)	1.67(1.14)	1.72	84	NS
Housing	1.63(1.17)	1.53(0.67)	0.51	84	NS

* Data are based on coding terms shown in Table 5.12 (p.111); and missing data are not included in calculations.

Comparison of 17 Motivational Dimensions between Two Practical Schools

Among the 17 motivational dimensions, there was only one significant difference between students in the two practical schools. Students in the Practical School B, located in an urban area, showed more ego-oriented motivation ($t=-2.31$, $df=82$, $p<0.023$) with a medium effect size of 0.50 and

power value of 0.81 at 0.01 significant level (see Table 5.16).

Table 5.16. *Comparisons of mean scores using independent t-test for the two practical schools in each dimension*

	Dimension	Mean (Standard Deviation)		t-value	df	Significance
		Practical School A (n=33)	Practical School B (n=51)			
1.	Attribution of success to internal factors	2.89 (0.68)	3.07(0.68)	-1.16	82	NS
2.	Attribution of success to external factors	2.59(0.93)	2.57(0.85)	0.11	82	NS
3.	Attribution of failure to internal factors	3.03(0.91)	3.03(0.85)	0.05	82	NS
4.	Attribution of failure to external factors	3.46(0.79)	3.54(0.75)	-0.45	82	NS
5.	Task-orientation	2.46(0.70)	2.49(0.52)	-0.19	82	NS
6.	Work avoidance	3.02(0.93)	3.19(0.71)	-0.93	82	NS
7.	Ego-orientation	2.30(0.62)	2.61(0.60)	-2.31	82	0.023
8.	Learned helplessness	2.85(0.77)	2.99(0.69)	-0.85	82	NS
9.	Learned hopelessness	3.06(0.73)	3.07(0.75)	-0.08	82	NS
10.	Negative emotion	2.68(0.70)	2.84(0.85)	-0.88	82	NS
11.	Lack of self-efficacy	2.88(0.79)	3.13(0.55)	-1.70	82	NS
12.	Self-worth motive	2.85(0.88)	2.86(0.77)	-0.04	82	NS
13.	Extrinsic value as purpose of education	2.34(0.63)	2.31(0.63)	0.23	82	NS
14.	Intrinsic value as purpose of education	2.22(0.67)	2.11(0.56)	0.79	82	NS
15.	Parental support	2.66(0.52)	2.78(0.69)	0.83	82	NS
16.	Positive attitude towards schooling	2.60(0.89)	2.55(0.59)	0.31	82	NS
17.	Negative attitude towards schooling	2.78(0.88)	2.95(0.68)	-0.99	82	NS

Comparison of Individual Motivational Items

When comparing responses to the individual motivational items between two practical schools by using an independent t-test, as shown in Table 5.17, it was found that students in Practical School B were more likely to make sure that they tried hard in schoolwork (Q.2), ($t=-2.17$, $p<0.03$ with an effect size of 0.48) and wished to be encouraged by others for their good schoolwork (Q. 5), ($t=-2.64$, $p<0.01$ with an effect size of 0.64). However, they were more likely to have difficulty in organising their study time efficiently (Q. 67), ($t=-2.54$, $p<0.01$ with an effect size of 0.54). In sum, students in Practical School B seemed to be more concerned about their

ego-oriented motivation and schoolwork.

Table 5.17. *Comparison of learning motivation between students in two practical schools*

Item No.	Item Content	Mean (Standard Deviation)		t-value	df	Significance	Effect size
		Practical School A (N=33)	Practical School B (N=51)				
No. 2	I try hard to make that I am good at my schoolwork.	1.76 (0.71)	2.10 (0.70)	-2.17	82	0.03	0.48
No. 5	I like to be encouraged by others for my schoolwork.	2.03 (0.88)	2.59 (0.98)	-2.64	82	0.01	0.64
No. 67	I found it difficult to organise my study time efficiently.	2.45 (1.12)	3.06 (1.03)	-2.54	82	0.01	0.54

Students' Motivation for Learning in Band 5 Schools

Sex, Age and Family Background

When the impacts of family backgrounds on students' learning motivation were examined, as shown in Table 5.18, it was found that father's occupation was highly related to measures of ego-oriented motivation towards learning and learned hopeless towards school tasks. Children of fathers who held clerical and technical jobs had higher ratings on ego-oriented motivation and learned hopeless motivation comparing with those of professional status respectively ($F=2.68$, $p<0.035$ for ego-orientation and $F=2.75$, $p<0.033$ for learned hopelessness). However, students whose fathers' education was only at primary school level intended to hold more positive attitudes towards school tasks; they had higher ratings on task-oriented attitude

towards schoolwork ($F=4.41$, $p<0.009$), adopting intrinsic values on purpose of education ($F=3.10$, $p<0.029$). Moreover, these students significantly held more positive attitude towards schooling than those of professional status ($F=4.01$, $p<0.0036$). Students whose parents at primary education level found their parents provided more supports for their school tasks when compared with their counterparts with parents of tertiary level ($F=8.81$, $p<0.0013$ for father's education level and $F=3.07$, $p<0.028$ for mother' education level). It was also found that girls in band 5 schools were more likely to adopt task-oriented motivation ($F=5.85$, $p<0.017$). Moreover, S. 2 students were more likely to adopt task-oriented motivation when comparing with their counterparts in S. 1 ($F=5.34$, $F=0.023$). Older students at age 15 above were more likely to hold ego-oriented motivation ($F=4.10$, $p<0.022$).

Table 5.18. *Comparison of students' sex, age, class level, and family background variables in relation to motivational dimensions for students in band 5 schools (N=121)*

Categories	Sex	Age	Class attended	Father's occupation	Father's education	Mother's occupation	Mother's education	Housing	No. of siblings
Key	1=male 2=Female	13=1 14=2 15=3 >15=4	1=S. 1 2=S. 2	1=Professional 2=Technical,3=Clerical, 4=Manual,5=Others, 0=unknow	1=Primary 2=Secondary 3=Tertiary	1=Professional 2=Technical,3=Clerical 4=Manual,5=Others, 0=unknown	1=Primary 2=Secondary 3=Tertiary	1=Public Housing 2=Private Housing (whole flat),3=Private Housing (Part of a flat); 4=Others	0=0, 1=1, 2=2 3=3,4=4,5=5 >6=6
Attribution success to internal factors	NS	NS	NS	NS	NS	NS	NS	NS	NS
Attribution success to external factors	NS	NS	NS	NS	NS	NS	NS	NS	NS
Attribution of failure to internal factors	NS	NS	NS	NS	NS	NS	NS	NS	NS
Attribution failure to external factors	NS	NS	NS	NS	NS	NS	NS	NS	NS
Task-oriented	F=5.845, p<0.017,2>1	NS	F=5.343, P=0.023, 2>1	NS	F=4.409 P<0.009,	NS	NS	NS	NS
Work avoidance	NS	NS	NS	NS	NS	NS	NS	NS	NS
Ego-oriented	NS	F=4.104 P<0.022,3 > 1,2,4	NS	F=2.68 P<0.035,3>1	NS	NS	NS	NS	NS
Learned Helplessness	NS	NS	NS	NS	NS	NS	NS	NS	NS
Learned Hopelessness	NS	NS	NS	F=2.745, P<0.033,2>1	NS	NS	NS	NS	NS
Negative emotion	NS	NS	NS	NS	NS	NS	NS	NS	NS
Lack of Self-efficacy	NS	NS	NS	NS	NS	NS	NS	NS	NS
Self-worth	NS	NS	NS	NS	NS	NS	NS	NS	NS
Extrinsic value of purpose of education	NS	NS	NS	NS	NS	NS	NS	NS	NS
Intrinsic value of purpose of education	NS	NS	NS	NS	F=3.100 P<0.029	NS	NS	NS	F=2.28 P<0.034;5>1,2
Parental support	NS	NS	NS	NS	F=8.808 P<0.013,1>2,3	NS	F=3.070 P<0.028,1>2	NS	NS
Positive attitude towards schooling	NS	NS	NS	NS	F=4.014 P<0.0036,1>3	NS	NS	NS	NS
Negative attitude towards schooling	NS	NS	NS	NS	NS	NS	NS	NS	NS
Remarks: Tukey test was used in multiple comparisons									

Comparison of Family Background Variables between Two Band 5 Schools

As with the practical schools, it is important to start by testing for differences between the two practical schools in family background of students. An independent t-test showed that there were no significant differences in family background between two Band 5 schools, as shown in Table 5.19.

Table 5.19. *Comparisons of mean scores for family background using independent t-test for two band 5 schools (N=121).*

Family Background	Mean(Standard Deviation)		t-value	df	Significance
	Band 5 School C (n=58)	Band 5 School D (n=63)			
Father's occupation	3.53 (0.96)	3.22 (1.08)	1.43	93	NS
Father's education level	1.53(0.54)	1.52(0.54)	0.27	114	NS
Mother's occupation	4.41(1.02)	4.21(0.96)	1.03	104	NS
Mother's education level	1.66(0.58)	1.54(0.53)	1.19	117	NS
No. of siblings	1.64(1.27)	1.67(0.80)	0.01	119	NS
Housing	1.52(0.80)	1.67(0.80)	-1.02	119	NS
Data based on coding key shown on Table 5.12 (p.111); and missing values are not included in calculation.					

Motivational Styles for Students in Band 5 Schools

When the data from the band 5 school students were subjected to the principal components analysis, four components were found (Table 5.20). These four components accounted for 62.79 percentage of variance explained. The first component consisted of negative motivational behaviours such as negative attitude towards schooling, work avoidance, lack of self-efficacy, attributing failure to external factors, helplessness,

and hopelessness. This factor was negatively related to measures such as task-oriented motivation (r= -0.60), positive attitude towards school (r=-0.59) and attribution of success to external factor (r=-0.50). It accounted for 25.12 % of the total variance to students' learning motivation. The second component was concerned with measures related to the purpose of education, such as intrinsic and extrinsic values for purpose of education, ego-oriented and negative emotion. The third component related to self-worth motive, including measures such as attributing failure to internal factors and self-worth motive. The fourth component related to success in school, including measures such as attributing success to internal factors and parental support. In sum, the negative motivational behaviour, together with the self-worth motive, accounted for 37 % of the total variance of motivational variables.

Table 5.20. *Factor loading for Principal Component Analysis with Varimax Rotation for the Students Learning Motivation Measures for the 17 categories of band 5 school Students. (N=121)*

Measures on students' motivation for learning	**Component**			
Negative motivational behaviour				
◦ Negative attitude towards schooling	0.89	-0.08	0.02	-0.13
◦ Work-avoidance	0.78	-0.09	0.11	0.05
◦ Lack of self-efficacy	0.72	0.32	0.19	0.12
◦ Attribution of failure to external factors	0.64	-0.14	0.16	0.10
◦ Learned Helplessness	0.63	0.21	0.27	-0.14
◦ Learned Hopelessness	0.61	0.22	0.42	-0.12
◦ Task-oriented	-0.60	0.39	-0.13	0.27
◦ Positive attitude towards schooling	-0.59	0.33	-0.13	0.48
◦ Attribution of success to external factors	-0.50	0.35	-0.19	0.27
Purpose of education				

◦ Intrinsic value for purpose of education	-0.21	0.76	-0.20	-0.04
◦ Extrinsic value for purpose of education	0.02	0.72	0.14	0.09
◦ Ego-oriented	0.17	0.68	0.14	0.38
◦ Negative emotion	0.07	0.67	0.41	-0.11
Self-worth motive				
◦ Attribution of failure to internal factors	0.21	0.06	0.82	-0.06
◦ Self-worth	0.23	0.06	0.79	0.02
Factors to school success				
• Attribution of success to internal factors	0.06	-0.10	0.03	0.86
◦ Parental support	-0.23	0.33	-0.13	0.59
Eigenvalue	5.18	3.09	1.35	1.05
% of Variance Explained	25.12	16.12	11.50	10.05

Comparison of Motivational Dimensions between Two Band 5 Schools

When students' responses to the motivational measures were compared in the two band 5 schools, as shown in Table 5.21, there were significant differences in 4 out of the 17 motivational measures. Students from the urban Band 5 School D were more likely to attribute their success towards external factors ($t=-2.67$, $p<0.009$ with an effect size 0.49). They were more often to adopt a self-worth attitude towards schoolwork ($t=-1.98$, $p<0.050$ with an effect size of 0.38). They tended to expect their school to impose more intrinsic and extrinsic values on the purpose of education (i.e. $t=-2.13$, $p<0.035$ with effect size of 0.38 for intrinsic value and $t=-4.62$, $p<0.000$ with an effect size of 0.80 for extrinsic value). Students in Band 5 School D seemed to concern more about the value judgement and self-performance in learning.

Table 5.21. *Comparisons of mean scores using independent t-test for the two band 5 schools in each Dimension*

	Dimension	Mean (Standard Deviation)		t-value	df	Significance	Effect Size
		Band 5 School C (n=58)	Band 5 School D (n=63)				
1.	Attribution of success to internal factors	3.16 (0.50)	3.15 (0.59)	0.02	119	NS	0.02
2.	Attribution of success to external factors	2.55(0.75)	2.92(0.76)	-2.67	119	0.009	0.49
3.	Attribution of failure to internal factors	2.93(0.76)	3.01(0.84)	-0.53	119	NS	0.11
4.	Attribution of failure to external factors	3.48(0.70)	3.46(0.61)	0.14	119	NS	0.03
5.	Task-orientation	2.41(0.53)	2.48(0.55)	-0.72	119	NS	0.13
6.	Work avoidance	3.24(0.84)	3.18(0.82)	0.43	119	NS	0.07
7.	Ego-orientation	2.53(0.74)	2.55(0.52)	-0.21	119	NS	0.03
8.	Learned helplessness	2.85(0.65)	2.94(0.58)	-0.78	119	NS	0.14
9.	Learned hopelessness	3.10(0.84)	3.13(0.66)	-0.21	119	NS	0.04
10.	Negative emotion	2.58(0.93)	2.54(0.73)	0.25	119	NS	0.04
11.	Lack of self-efficacy	2.86(0.68)	3.02(0.60)	-1.40	119	NS	0.24
12.	Self-worth motive	2.97(0.65)	3.22(0.72)	-1.98	119	0.050	0.38
13.	Extrinsic value as purpose of education	2.11(0.59)	2.58(0.52)	-4.62	119	0.000	0.80
14.	Intrinsic value as purpose of education	1.88(0.64)	2.12(0.62)	-2.13	119	0.035	0.38
15.	Parental support	2.57(0.54)	2.73(0.55)	-1.60	119	NS	0.30
16.	Positive attitude towards schooling	2.51(0.70)	2.62(0.59)	-0.94	119	NS	0.16
17.	Negative attitude towards schooling	3.33(0.77)	3.14(0.74)	1.39	119	NS	0.25

Comparison of Students' Background and Motivational Variables between Practical Schools and Band 5 Schools

Comparison of Students' Background Variables

The analysis of data from family background variables within each type of schools, i.e. for practical and band 5 schools separately, showed that there

were no significant differences (see Tables 5.15 and 5.19). A comparison was carried out between practical and band 5 schools to see whether there were any impacts of family background on students' motivational behaviour, the results was presented in Table 5. 22. Significant difference was found in one of the family background variables between students from practical and band 5 schools, i.e. father's educational level ($t=2.31$, $p<0.022$ with effect size of 0.36). It seemed that students in practical schools on average had fathers of higher educational level when compared with their counterparts in band 5 schools. In view of the fact that there were more non-responses to items regarding parents' occupation and education levels for students in practical schools, ranging from 28 to 45, we should therefore be cautious in the interpretation of the results.

Table 5.22. Comparisons of mean scores for family background using independent t-test for practical and band 5 schools (N=207)

Family Background	Mean (Standard Deviation)		t-value	Df	Significance	Effect Size
	Practical School (n=86)	Band 5 School (n=121)				
Father's occupation	3.07(1.13)	3.34(1.04)	-1.39	135	NS	0.24
Father's education level	1.72(0.53)	1.53(0.54)	2.31	1.69	0.022	0.36
Mother's occupation	4.48(0.97)	4.30(0.99)	1.06	154	NS	0.19
Mother's education level	1.64(0.55)	1.60(0.56)	0.46	175	NS	0.07
No. of siblings	1.90(1.50)	1.64(1.26)	1.34	205	NS	0.17
Housing	1.57(0.88)	1.60(0.80)	-0.22	205	NS	0.03

* Data based on coding key shown in Table 5.12 (p.111). The number of valid responses varied from item to item with a range from 42 to 58 in practical schools and 95 to 119 in band 5 schools.

Students' family background was further analysed by using a breakdown according to the percentages of each sub-category of variables such as

father's occupation, mother's occupation, father's educational level and mother's educational level (Table 5.23). It can be seen that students in band 5 school had more parents with secondary education levels than their counterparts in practical schools, i.e. 47.1 % vs 41.9 % for father's education and 52.1 % vs 38.4 % for mother's education, However, there were more working class parents in band 5 schools, i.e. 54.5% vs 25.6 % for father's occupation and 26.4 % vs 12.8 % for mother's occupation. It showed that most students from band 5 and practical schools came from a family of lower socio-economic status and with parents of lower educational level. Moreover, a large proportion of students in practical schools did not respond to items related to their parents' occupation (52.4 % for father's and 41.9 % for mother's) and educational level (36 % for father's and 32.6 % for mother's). It may be argued that these students actually did not know their parents' occupation and educational level and that there was a lack of communication between parent and child at home. It might also reflect a poor parent-child relationship in their family.

Table 5.23. *A comparison of parents' occupation and education levels between practical and band 5 schools students by percentage*

Parents' Variables	Categories	Practical Schools	Band 5 Schools
		No (%)	No (%)
Father's occupation	Professional	3 (3.5%)	7 (5.8%)
	Technical	15 (17.4%)	19(15.7%)
	Clerical	1 (1.2%)	3 (2.5%)
	Manual	22 (42.5%)	66 (54.5%)
	Unknown	45 (52.4%)	26 (21.2%)
	Sub-total	86 (100%)	121(100%)
Mother's occupation	Professional	2 (2.3%)	4 (3.3%)
	Technical	1 (1.2%)	2 (1.7%)
	Clerical	2 (2.3%)	10 (8.3%)
	Manual	11 (12.8%)	32 (26.4%)
	Housewife	34 (39.5%)	58(47.6%)
	Unknown	36 (41.9%)	15 (12.4%)
	Sub-total	86 (100%)	121(100%)

Father's education	Primary level	17 (19.8%)	57 (47.1%)
	Secondary level	36 (41.9%)	57 (47.1%)
	Tertiary level	2 (2.3%)	2 (1.7%)
	Unknown	31 (36.0%0	5 (4.1%)
	Sub-total	86 (100%)	121(100%)
Mother's education	Primary level	23 (26.7%)	52 (43.0%)
	Secondary level	33 (38.4%)	63(52.1 %)
	Tertiary level	3 (2.3%)	4 (3.3%)
	Unknown	28 (32.6%	2(1.7%)
	Sub-total	86 (100%)	121(100%)

Comparison of Motivation for Learning for Students in Practical and Band 5 Schools

A comparison was carried out between students from practical and band 5 schools to see whether there were any differences in their motivational styles, as shown in Table 5.24. The results showed significant differences in students' responses on two motivational measures, i.e. self-worth motive ($t=-2.23$, $p<0.023$ with an effect size of 0.30) and negative attitude towards schooling ($t=-3.27$, $p<0.01$ with an effect size 0.45). Students in band 5 schools were more likely to adopt negative attitude towards schooling and self-worth motivation. When items with effect sizes greater than 0.2 are concerned , students in band 5 schools were more likely to attribute their success to internal factors such as good luck, effort, and being smart (effect size = 0.24). However, students in practical schools tended to report negative emotion (effect size = 0.28) and were more likely to adopt intrinsic value as purpose of education (effect size = 0.23). It seemed that students in practical and band 5 schools exhibited different patterns of maladaptive motivation behaviour.

Table 5.24. *Comparisons of mean scores using independent t-test for practical and band 5 schools in each category*

	Category	Mean (Standard Deviation)		t-value	df	Significance	Effect Size
		Practical School (n=84)	Band 5 School (n=121)				
1.	Attribution of success to internal factors	2.99 (0.68)	3.15 (0.55)	-1.84	203	NS	0.24
2.	Attribution of success to external factors	2.58(0.88)	2.74(0.78)	-1.43	203	NS	0.18
3.	Attribution of failure to internal factors	3.02(0.87)	2.97(0.80)	0.50	203	NS	0.06
4.	Attribution of failure to external factors	3.51(0.76)	3.47(0.65)	0.44	203	NS	0.05
5.	Task-orientation	2.48(0.59)	2.44(0.54)	0.48	203	NS	0.07
6.	Work avoidance	3.12(0.80)	3.21(0.83)	-0.77	203	NS	0.11
7.	Ego-orientation	2.49(0.62)	2.54(0.63)	-0.60	203	NS	0.08
8.	Learned helplessness	2.93(0.72)	2.90(0.61)	0.35	203	NS	0.04
9.	Learned hopelessness	3.07(0.74)	3.11(0.74)	-0.43	203	NS	0.05
10.	Negative emotion	2.78(0.79)	2.56(0.83)	1.89	203	NS	0.28
11.	Lack of self-efficacy	3.04(0.66)	2.94(0.64)	0.99	203	NS	0.15
12.	Self-worth motive	2.86(0.81)	3.10(0.70)	-2.30	203	0.023	0.30
13.	Extrinsic value as purpose of education	2.32(0.63)	2.35(0.60)	-0.37	203	NS	0.05
14.	Intrinsic value as purpose of education	2.15(0.61)	2.01(0.64)	1.67	203	NS	0.23
15.	Parental support	2.73(0.63)	2.66(0.55)	0.91	203	NS	0.13
16.	Positive attitude towards schooling	2.56(0.71)	2.57(0.65)	-0.02	203	NS	0.00
17.	Negative attitude towards schooling	2.88(0.77)	3.23(0.75)	-3.27	203	0.001	0.45

Comparison of Individual Motivational Items

When the t-test was conducted to compare students' responses to the individual items between practical and band-5 schools, it was found that

there were significant differences in 8 of the 70 items (see Table 5.25). Students in practical schools were more likely to attribute their failure to difficult schoolwork (Q. 13), and to feel nervous when taking school examinations (Q.28). Although they were more likely to figure out school assignments by themselves (Q. 37), they were more likely to feel ashamed when they could not do well in schoolwork (Q. 47). Students in band 5 schools more frequently attributed their success to the ease of schoolwork (Q. 8). They thought that school should teach them to compete with others (Q. 29). They were more likely to leave their homework to the last minute (Q. 15) and to get out of schoolwork as soon as possible (Q. 68). All eight items mentioned above had effect sizes of 0.29 or above with power value 0.75 at 0.01 significant level. It seemed that students in practical schools and band 5 schools tended to adopt different maladaptive motivational styles: the former tended to adopt learned helpless motivation while the latter tended to exhibit self-worth motive.

Table 5.25. Comparison of motivation for learning between students of practical schools and band 5 schools (N=207)

Item No.	Item Content	Mean (Standard. Deviation)		t-value	df	Significance	Effect-Size
		Practical School (N=84)	Band-5 School (N=121)				
No. 8	When I do well in school, it is because the schoolwork is easy to understand.	2.56 (1.15)	2.89 (1.01)	-2.18	203	0.030	0.29
No. 13	When I do poorly in school, it is because the schoolwork is hard.	3.53 (1.11)	3.09 (1.03)	2.94	203	0.004	0.40
No. 15	I always leave my homework to the last minute.	3.35 (1.19)	3.76 (1.10)	-2.50	203	0.013	0.34

No. 28	I feel nervous when I take school examinations.	2.64 (1.08)	2.32 (1.06)	2.11	203	0.036	0.30
No. 29	School should teach us to compete with others.	2.53 (0.91)	2.90 (1.00)	-2.66	203	0.008	0.41
No. 37	I like to try to figure out how to do school assignments on my own.	2.79 (1.03)	2.45 (0.79)	2.61	203	0.010	0.33
No. 47	I feel ashamed because I cannot do well in schoolwork.	2.92 (1.15)	2.56 (1.09)	2.24	203	0.026	0.31
No. 68	I wish to get out of schoolwork as soon as possible.	3.10 (1.23)	3.51 (1.10)	-2.54	203	0.012	0.33

Changes in Motivation for Learning for S. 1 Students

To investigate whether practical and band 5 schools can enhance students' motivation for learning, this research included a longitudinal study over a half-year interval. The S.1 students were required to answer the same questionnaire on two occasions, one in the middle of the first school term and one at the end of the second school term. The data from students who had completed the first questionnaire and the second questionnaire were compared by the paired-sample t-test. Of those 108 students who completed the first questionnaire, 102 students (94.4 %) successfully completed the second questionnaire. Six students could not complete the second questionnaire owing to their absence or the non-completion of data. When the data from the 102 students were analysed, it was found that of the 17 motivational categories, students showed changes in two measures (Table 5.26). There were significant differences in learned helplessness ($t= 2.09$, $p<0.040$ with an effect size of 0.21) and self-worth motive ($t=2.82$, $p<0.006$ with an effect size of 0.27). It could be seen that after half a year, the mean score of the learned helpless measure showed a significant decrease from 2.87 to 2.72 while the mean score of the self-worth measure

decreased from 3.02 to 2.81. Thus, there is some evidence that the sample of students from practical schools and band 5 schools as a whole improved their motivation for learning over a period of half-year. There were significant positive changes in two important aspects of their maladaptive motivation, namely, learned helpless and self-worth motives. However, we were interested to know which type of schools had students of great improvement and in which dimensions.

Table 5.26. *Results of t-tests on learning motivation for S.1 students between students in first test and second test for the entire sample (N=102)*

	Dimension	Mean (Standard Deviation)		t-value	df	Significance
		1st test	2nd test			
1.	Attribution of success to internal factors	3.08 (0.63)	3.00 (0.67)	1.22	99	NS
2.	Attribution of success to external factors	2.57 (0.77)	2.70 (0.80)	-1.45	99	NS
3.	Attribution of failure to internal factors	3.00 (0.81)	2.96 (0.72)	0.39	99	NS
4.	Attribution of failure to external factors	3.46 (0.72)	3.12 (0.78)	1.54	99	NS
5.	Task-orientation	2.40 (0.60)	2.45 (0.57)	-0.69	99	NS
6.	Work avoidance	3.21 (0.83)	3.07 (0.78)	1.75	99	NS
7.	Ego-orientation	2.53 (0.66)	2.44 (0.63)	1.44	99	NS
8.	Learned helplessness	2.87 (0.68)	2.72 (0.53)	2.09	99	0.040
9.	Learned hopelessness	3.02 (0.77)	2.93 (0.74)	1.17	99	NS
10.	Negative emotion	2.61 (0.84)	2.60 (0.66)	0.03	99	NS
11.	Lack of self-efficacy	2.97 (0.69)	2.91 (0.62)	0.83	99	NS
12.	Self-worth motive	3.02 (0.77)	2.81 (0.66)	2.82	99	0.006
13.	Extrinsic value as purpose of education	2.38 (0.64)	2.31 (0.55)	1.09	99	NS
14.	Intrinsic value as purpose of education	2.07 (0.65)	1.97 (0.51)	1.57	99	NS

15.	Parental support	2.63 (0.61)	2.58 (0.49)	0.82	99	NS
16.	Positive attitude towards schooling	2.51 (0.75)	2.59 (0.65)	1.00	99	NS
17.	Negative attitude towards schooling	3.11 (0.84)	3.02 (0.69)	-0.98	99	NS

Changes in Students' Motivation for Learning in Practical Schools

S. 1 Students in Practical Schools

When the data from the 42 S. 1 students from practical schools who had successfully completed the first and second questionnaires were analysed, surprisingly, it was found that students in practical schools showed a significant deterioration in their negative attitudes towards schooling ($t=-2.34$, $p<0.024$ with an effect size of 0.47). There were no significant changes in other motivational measures (Table 5.27).

Table 5.27. *Results of t-tests on learning motivation for S.1 students between students in first test and second test for practical schools (N=42)*

	Dimension	Mean (Standard Deviation)		t-value	df	Significance
		1st test	2nd test			
1.	Attribution of success to internal factors	2.94 (0.70)	2.81 (0.66)	1.16	39	NS
2.	Attribution of success to external factors	2.44 (0.79)	2.43 (0.67)	0.08	39	NS
3.	Attribution of failure to internal factors	2.91 (0.78)	2.86 (0.78)	0.33	39	NS
4.	Attribution of failure to external factors	3.52 (0.75)	3.39 (0.85)	0.74	39	NS
5.	Task-orientation	2.50 (0.67)	2.28 (0.53)	1.88	39	NS
6.	Work avoidance	3.06 (0.86)	3.07 (0.69)	-0.08	39	NS
7.	Ego-orientation	2.53 (0.67)	2.48 (0.60)	0.53	39	NS
8.	Learned helplessness	2.88 (0.68)	2.81 (0.50)	0.56	39	NS

9.	Learned hopelessness	2.96 (0.72)	3.00 (0.73)	-0.30	39	NS
10.	Negative emotion	2.68 (0.77)	2.81 (0.55)	-0.97	39	NS
11.	Lack of self-efficacy	2.93 (0.68)	2.95 (0.54)	-0.19	39	NS
12.	Self-worth motivation	2.77 (0.76)	2.78 (0.72)	-0.10	39	NS
13.	Extrinsic value as purpose of education	2.41 (0.67)	2.42 (0.61)	-0.13	39	NS
14.	Intrinsic value as purpose of education	2.23 (0.64)	2.09 (0.58)	1.45	39	NS
15.	Parental support	2.70 (0.57)	2.56 (0.54)	1.45	39	NS
16.	Positive attitude towards schooling	2.53 (0.79)	2.38 (0.62)	1.35	39	NS
17.	Negative attitude towards schooling	2.88 (0.86)	3.24 (0.61)	-2.34	39	0.024

Comparison between S.1 and S. 2 Students in Practical Schools

The motivational responses were compared for cross sectional samples of S.1 and S.2 students in practical schools who had completed the first batch of questionnaire. It was found that S. 2 students in practical schools were more likely to rate a lack of self-efficacy, as shown in Table 5.28. S. 2 students in practical schools reported a greater increase in the lacking of self-efficacy ($t = -2.34$, $p<0.024$ with effect size of 0.42). Based on this evidence, practical schools did not bring forth a positive change in their students' motivation for learning.

Table 5.28. *Comparison of motivational dimensions between S.1 and S.2 students in Practical Schools by t-tests (N=86)*

	Dimension	Mean (Standard Deviation)		t-value	df	Significance
		S. 1 Students (N=44)	S. 2 Students (N=40)			
1.	Attribution of success to internal factors	2.95(0.70)	3.05(0.67)	-0.69	82	NS
2.	Attribution of success to external factors	2.49(0.77)	2.68(0.98)	-0.97	82	NS
3.	Attribution of failure to internal factors	2.90(0.76)	3.18(0.96)	-0.53	82	NS
4.	Attribution of failure to external factors	3.47(0.74)	3.56(0.79)	-1.48	82	NS
5.	Task-orientation	2.49(0.67)	2.47(0.51)	0.20	82	NS

6.	Work avoidance	3.02(0.85)	3.23(0.74)	-1.18	82	NS
7.	Ego-orientation	2.53(0.66)	2.45(0.58)	0.59	82	NS
8.	Learned helplessness	2.91(0.66)	2.96(0.80)	-0.30	82	NS
9.	Learned hopelessness	2.94(0.70)	3.21(0.76)	-1.64	82	NS
10.	Negative emotion	2.69(0.75)	2.87(0.84)	-1.01	82	NS
11.	Lack of self-efficacy	2.88(0.67)	3.21(0.62)	-2.30	82	0.024
12.	Self-worth motive	2.79(0.75)	2.94(0.87)	-0.84	82	NS
13.	Extrinsic value as purpose of education	2.39(0.68)	2.24(0.56)	1.08	82	NS
14.	Intrinsic value as purpose of education	2.23(0.64)	2.07(0.57)	1.24	82	NS
15.	Parental support	2.70(0.56)	2.77(0.70)	-0.54	82	NS
16.	Positive attitude towards schooling	2.51(0.77)	2.63(0.66)	-0.77	82	NS
17.	Negative attitude towards schooling	2.85(0.84)	2.92(0.69)	-0.40	82	NS

Changes in Students' Motivation for Learning in Band 5 Schools

Changes in Motivation for Learning for S. 1 Students

However, students in band 5 schools did show more evidence of positive change in their motivation for learning. The evidence from the comparison of S. 1 students in band 5 schools who had completed two questionnaires at an interval of half a year showed that there were significantly positive changes in seven of the 17 dimensions of motivation for learning (Table 5.29). The students in Band 5 schools increased their attribution of success to external factors ($t = -2.11$, $p < 0.039$ with an effect size of 0.29) and held more positive attitudes towards schooling ($t = -2.06$, $p < 0.044$ with an effect size of 0.33). At the same time, they were less likely to adopt a work-avoidance attitude towards schoolwork ($t = 2.67$, $p < 0.010$ with an effect size of 0.31), to report feeling of learned helplessness ($t = 2.39$, $p < 0.020$ with an effect size of 0.28), to have negative attitudes towards schooling ($t = 3.68$, $p < 0.001$ with an effect size of 0.50), and to use the self-worth strategy ($t = 4.03$, $p < 0.000$ with an effect size of 0.47). Furthermore, there was an increase in their task-oriented motivation ($t = -2.83$, $p < 0.006$ with an effect size of 0.41).

Table 5.29. *Comparison of motivational dimensions for S. 1 students between first test and second test for band 5 schools by t-test (N=60)*

	Dimension	Mean (Standard Deviation)		t-value	df	Significance
		1st test	2nd test			
1.	Attribution of success to internal factors	3.18 (0.56)	3.12 (0.64)	0.59	59	NS
2.	Attribution of success to external factors	2.66 (0.76)	2.88 (0.84)	-2.11	59	0.039
3.	Attribution of failure to internal factors	3.05 (0.83)	3.03 (0.67)	0.23	59	NS
4.	Attribution of failure to external factors	3.42 (0.70)	3.27 (0.74)	1.44	59	NS
5.	Task-orientation	2.34 (0.54)	2.56 (0.58)	-2.83	59	0.006
6.	Work avoidance	3.31 (0.80)	3.06 (0.84)	2.67	59	0.010
7.	Ego-orientation	2.53 (0.66)	2.41 (0.65)	1.38	59	NS
8.	Learned helplessness	2.85 (0.68)	2.66 (0.55)	2.39	59	0.020
9.	Learned hopelessness	3.06 (0.82)	2.88 (0.75)	1.74	59	NS
10.	Negative emotion	2.57 (0.89)	2.48 (0.69)	0.85	59	NS
11.	Lack of self-efficacy	3.00 (0.70)	2.88 (0.68)	1.38	59	NS
12.	Self-worth motive	3.18 (0.74)	2.83 (0.62)	4.03	59	0.000
13.	Extrinsic value as purpose of education	2.35 (0.61)	2.24 (0.50)	1.52	59	NS
14.	Intrinsic value as purpose of education	1.96 (0.65)	1.89 (0.44)	0.86	59	NS
15.	Parental support	2.58 (0.63)	2.59 (0.45)	-0,16	59	NS
16.	Positive attitude towards schooling	2.49 (0.73)	2.73 (0.63)	3.68	59	0.044
17.	Negative attitude towards schooling	3.27 (0.80)	2.87 (0.70)	-2.06	59	0.001

Comparison between S.1 and S. 2 Students in Band 5 Schools

When comparing the data between S.1 and S.2 students in band 5 schools, it was also found that S. 2 students showed a significant positive change in their task-oriented motivation. The students in band 5 schools became

more likely to adopt a task-oriented strategy towards school tasks (t = -2.31, p<0.023 with an effect size of 0.43), as shown in Table 5.30.

Table 5.30. *Comparison of motivational dimensions between S. 1 and S. 2 students in Band 5 Schools by t-tests (N=121)*

	Dimension	Mean (Standard Deviation)		t-value	df	Significance
		S. 1 Students (N=62)	S. 2 Students (N=59)			
1.	Attribution of success to internal factors	3.16 (0.56)	3.15(0.54)	0.14	119	NS
2.	Attribution of success to external factors	2.65(0.75)	2.85(0.80)	-1.44	119	NS
3.	Attribution of failure to internal factors	3.07(0.82)	2.86(0.76)	1.44	119	NS
4.	Attribution of failure to external factors	3.42(0.70)	3.52(0.61)	-0.84	119	NS
5.	Task-orientation	2.33(0.54)	2.56(0.53)	-2.31	119	0.023
6.	Work avoidance	3.30(0.81)	3.11(0.84)	1.27	119	NS
7.	Ego-orientation	2.52(0.65)	2.56(0.62)	-0.35	119	NS
8.	Learned helplessness	2.87(0.68)	2.93(0.54)	-0.58	119	NS
9.	Learned hopelessness	3.06(0.81)	3.17(0.67)	-0.74	119	NS
10.	Negative emotion	2.59(0.88)	2.52(0.78)	0.42	119	NS
11.	Lack of self-efficacy	2.99(0.70)	2.90(0.58)	0.76	119	NS
12.	Self-worth motive	3.17(0.74)	3.03(0.66)	1.13	119	NS
13.	Extrinsic value as purpose of education	2.36(0.61)	2.35(0.59)	0.11	119	NS
14.	Intrinsic value as purpose of education	1.98(0.66)	2.03(0.62)	-0.47	119	NS
15.	Parental support	2.58(0.62)	2.74(0.45)	-1.64	119	NS
16.	Positive attitude towards schooling	2.48(0.72)	2.67(0.55)	0.52	119	NS
17.	Negative attitude towards schooling	3.27(0.79)	3.20(0.72)	-1.59	119	NS

Changes in Students' Motivation for Learning in Individual Schools

The data on changes in students' motivation for learning in individual schools are presented in Tables 5.31- 5.34. When the data of individual students who had completed the same questionnaire at an interval of about half-year were compared, the evidence showed differences between individual schools. The data showed that students in band 5 schools, on the whole, tended to have a positive change in their motivation for learning while practical schools were vise versa. There is evidence showing that students in Practical School A reported an increase in negative attitudes

towards schooling (from mean=2.50 to mean=3.17, t=-2.21, p<0.043, with an effect size of 0.70) (Table 5.31). In Practical School B there was a decrease in the task-oriented measure (from mean 2.55 to mean = 2.24, t =2.94, p<0.007, with an effect size of 0.62) (Table 5.32).

Table 5.31. *Comparison of motivational dimensions between first test and second test for S. I students by t-test for Practical School A (N=16)*

	Dimension	Mean		t-value	Df	Significance
		1st test	2nd test			
1.	Attribution of success to internal factors	2.63	2.63	0.00	16	NS
2.	Attribution of success to external factors	2.38	2.50	-0.43	16	NS
3.	Attribution of failure to internal factors	2.78	2.88	-0.39	16	NS
4.	Attribution of failure to external factors	3.35	3.48	-0.37	16	NS
5.	Task-orientation	2.42	2.34	0.31	16	NS
6.	Work avoidance	2.56	3.02	-1.71	16	NS
7.	Ego-orientation	2.27	2.32	-0.32	16	NS
8.	Learned helplessness	2.67	2.81	-0.54	16	NS
9.	Learned hopelessness	2.77	3.17	-1.70	16	NS
10.	Negative emotion	2.59	2.89	-1.17	16	NS
11.	Lack of self-efficacy	2.65	3.01	-1.55	16	NS
12.	Self-worth motive	2.77	2.95	-0.72	16	NS
13.	Extrinsic value as purpose of education	2.33	2.53	-1.34	16	NS
14.	Intrinsic value as purpose of education	2.33	2.13	0.92	16	NS
15.	Parental support	2.57	2.48	0.51	16	NS
16.	Positive attitude towards schooling	2.50	2.23	1.11	16	NS
17.	Negative attitude towards schooling	2.50	3.17	-2.21	16	0.043

Table 5.32. *Comparison of motivational dimensions between first test and second test for S. I students by t--test for Practical School B (N=24)*

	Dimension	Mean		t-value	Df	Significance
		1st test	2nd test			
1.	Attribution of success to internal factors	3.15	2.93	1.86	23	NS
2.	Attribution of success to external factors	2.48	2.38	0.64	23	NS
3.	Attribution of failure to internal factors	3.00	2.85	0.73	23	NS
4.	Attribution of failure to external factors	3.63	3.33	1.76	23	NS
5.	Task-orientation	2.55	2.24	2.94	23	0.007
6.	Work avoidance	3.39	3.10	1.95	23	NS
7.	Ego-orientation	2.71	2.59	1.04	23	NS
8.	Learned helplessness	3.02	2.81	1.95	23	NS

9.	Learned hopelessness	3.09	2.89	1.87	23	NS
10.	Negative emotion	2.73	2.76	-0.19	23	NS
11.	Lack of self-efficacy	3.11	2.91	1.38	23	NS
12.	Self-worth motive	2.77	2.67	1.01	23	NS
13.	Extrinsic value as purpose of education	2.46	2.34	0.99	23	NS
14.	Intrinsic value as purpose of education	2.17	2.06	1.31	23	NS
15.	Parental support	2.78	2.62	1.67	23	NS
16.	Positive attitude towards schooling	2.54	2.47	0.75	23	NS
17.	Negative attitude towards schooling	3.14	3.29	-1.03	23	NS

As has already been shown in Table 5.29, students in the band 5 schools showed positive change in their motivation for learning. Students in Band 5 School C had significant positive changes on 6 of the motivational dimensions (Table 5.33), i.e. they were less likely to attribute their failure to external factors ($t=2.40$, $p<0.0230$ with an effect size of 0.49), to hold work avoidance ($t=4.26$, $p<0.000$ with an effect size of 0.64), to have negative attitude towards schooling ($t=4.49$, $p<0.000$ with an effect size of 0.78), and to adopt self-worth towards school tasks ($t=2.61$, $p<0.014$ with an effect size of 0.54). On the other hand, there were increases in adaptive measures such as task-oriented ($t=-3.62$, $p<0.001$ with an effect size of 0.78) and positive attitude towards schooling ($t=-3.32$, $p<0.002$ with an effect size of 0.77).

Table 5.33 *.Comparison of motivational dimension between first test and second test for S.1 students by t-test for Band 5 School C (N=31)*

	Dimension	Mean		t-value	Df	Significance
		1st test	2nd test			
1.	Attribution of success to internal factors	3.10	2.92	1.39	30	NS
2.	Attribution of success to external factors	2.47	2.76	-1.79	30	NS
3.	Attribution of failure to internal factors	2.97	2.84	0.86	30	NS
4.	Attribution of failure to external factors	3.37	2.99	2.40	30	0.023
5.	Task-orientation	2.30	2.68	-3.62	30	0.001
6.	Work avoidance	3.24	2.75	4.26	30	0.000
7.	Ego-orientation	2.46	2.32	1.12	30	NS

8.	Learned helplessness	2.72	2.56	1.50	30	NS
9.	Learned hopelessness	2.97	2.69	1.79	30	NS
10.	Negative emotion	2.53	2.51	0.17	30	NS
11.	Lack of self-efficacy	2.81	2.77	0.31	30	NS
12.	Self-worth motive	3.06	2.69	2.61	30	0.014
13.	Extrinsic value as purpose of education	2.10	2.19	-1.00	30	NS
14.	Intrinsic value as purpose of education	1.88	1.98	-1.43	30	NS
15.	Parental support	2.42	2.58	-1.72	30	NS
16.	Positive attitude towards schooling	2.39	2.95	-3.32	30	0.002
17.	Negative attitude towards schooling	3.26	2.60	4.49	30	0.000

Students in Band 5 School D were less likely to accept extrinsic values as the purpose of education ($t=2.92$, $p<0.007$ with an effect size of 0.63) and were less likely to adopt a self-worth strategy ($t=3.30$, $p<0.003$ with an effect size of 0.44) (Table 5.34). It could be seen that in spite of the relatively small sample size in each school, most of the differences are with effect sizes of 0.5 or above.

Table 5.34. *Comparison of motivational dimensions between first test and second test for S. 1 students by t-test for Band 5 School D (N=29)*

	Dimension	Mean		t-value	Df	Significance
		1st test	2nd test			
1.	Attribution of success to internal factors	3.26	3.34	-0.71	28	NS
2.	Attribution of success to external factors	2.86	3.00	-1.11	28	NS
3.	Attribution of failure to internal factors	3.22	3.14	-0.53	28	NS
4.	Attribution of failure to external factors	3.48	3.56	-0.59	28	NS
5.	Task-orientation	2.37	2.42	-0.43	28	NS
6.	Work avoidance	3.37	3.40	-0.18	28	NS
7.	Ego-orientation	2.61	2.50	0.82	28	NS
8.	Learned helplessness	3.00	2.76	1.84	28	NS
9.	Learned hopelessness	3.16	3.08	0.59	28	NS
10.	Negative emotion	2.61	2.44	0.96	28	NS
11.	Lack of self-efficacy	3.20	2.99	1.72	28	NS
12.	Self-worth motive	3.31	2.97	3.30	28	0.003
13.	Extrinsic value as purpose of education	2.62	2.28	2.92	28	0.007
14.	Intrinsic value as purpose of education	2.05	1.78	1.72	28	NS
15.	Parental support	2.76	2.61	1.35	28	NS
16.	Positive attitude towards schooling	2.60	2.49	0.88	28	NS
17.	Negative attitude towards schooling	3.28	3.15	0.86	28	NS

Positive Changes in Students' Motivation for Learning in Band 5 Schools

From the above analysis, it can be seen that band 5 schools, compared to practical schools, had a positive influence on students' motivation for learning. After enrollment in practical schools, the students showed deterioration in their negative attitude towards schools. Moreover, they reported themselves lacking in self-efficacy. In contrast, students in band 5 schools reported positive changes in their adaptive motivation. At the same time, there were decreases in their ratings on maladaptive motivation. Thus, this study provided evidence that band 5 schools could have a positive effect on students' motivation for learning.

Students' Motivation for Learning and Attainment Tests

Number of Students completing the Hong Kong Attainment Tests

To investigate the relations between students' motivation and their attainment results, participating schools were requested to provide students' test results in the Hong Kong Attainment Tests (HKATs)* taken in May 2000 as required by the Hong Kong Education Department. As practical schools are categorised as special schools by the Education Department, students in these schools are not required to take the HKATs. Thus, only data on HKATs for students in band 5 schools were available for the purpose of analysis. Of the 121 students from band 5 schools who completed the questionnaires on motivation, only 119 completed their HKATs in Chinese and Mathematics; the number of students from each band 5 school is given in Table 5.35.

Table 5.35. *No. of students completing the Hong Kong Attainment Tests from two Band 5 schools*

Class Level	Name of Schools		Total
	Band 5 School C	**Band-5 School D**	
S. 1	32 (1 data incomplete)	28 (I data incomplete)	60
S. 2	25 (1 data incomplete)	34	59
Total	57	62	119

Note: The HKATs are developed by the Education Department to test students' ability in Chinese, English and Mathematics. The tests are taken at the end of each school year for students from primary 1 to secondary 3. The test results provide some useful summative information in the three basic subjects. The tests are based on criterion-referencing principles, which can be used to monitor the general standards of academic achievement for students in Hong Kong.

The Correlations between the Hong Kong Attainment Tests in Chinese and Mathematics

Both the HKATs in Chinese for S. 1 and 2 students included two sub-tests, one in written form and the other in listening form. S.1 students are required to complete the tests in one hour and 10 minutes while the S. 2 students, one hour and 15 minutes. The HKATs in Mathematics for S. 1 and S. 2 students are multiple-choice questions. The S.1 students are required to complete the tests in one hour while the S.2 students have one hour and 10 minutes. Based on the test results of the 119 students, the correlation between the HKATs in Chinese and Mathematics is 0.39 ($p<0.01$).

The Correlations between Students' Motivation for Learning and the Attainment Tests

Pearson product-moment correlations were computed for the 70 items and for the 17 dimensions respectively so as to examine the relationship between students' motivational style and HKATs in Chinese and Mathematics, results are shown in Table 5.36. It was found that motivational items were significantly correlated with the HKATs in Chinese and Mathematics. The results also showed that attribution of failure to internal factors (Item 10: I fail in school subjects because I am lazy) was significantly related to Mathematics results ($r=0.27$, $p<0.01$). Performance in mathematics is also significantly related to students' attribution of their success to external factors (Item 8: When I do well in school, it is because the schoolwork is easy to understand; $r=0.18$, $p<0.05$). There are also significant correlations between Mathematics results and self-worth motivation (Item 30: I fail in school subjects because I do not make a serious attempt in schoolwork; $r=0.26$, $p<0.01$); and extrinsic value for purpose of education (Item 69: School should prepare us to earn more money; $r=0.29$, $p<0.01$). It seems that students' Mathematics performance is related to the internal motivational constructs of ability and effort.

As regards the relation between attainment in Chinese and motivational style, it was found that there were significant correlations between Chinese results and maladaptive motivational styles, such as learned helplessness (Item 32: There is no point in working hard at school because it makes no difference in getting a good result; $r=0.26$, $p<0.01$); and work avoidance (Item 51: I could do better in my schoolwork but I am not prepared to try

harder; r=0.29, p<0.01). As shown in Table 5.36, it can be seen that motivational styles such as attribution of failure to external factors, parental support, hopelessness, lack of self-efficacy had strong relationships with Chinese attainment test results. It seems that Chinese performance was more related to maladaptive motivational styles.

Table 5.36. *Correlations between the 70-item students' questionnaire and the Hong Kong Attainment Tests in Chinese and Mathematics*

Dimension	Item No.	Item Content	HKAT-Chinese	HKAT-Maths
Attribution of success to external factors	No. 8	When I do well in school, it is because the schoolwork is easy to understand.	0.05	0.18*
Attribution of failure to internal factors	No. 10	I fail in school subjects because I am lazy.	0.07	0.27**
Parental support	No. 11	My parents often help me to complete the homework.	0.21*	-0.10
	No. 56	My parents always tell me that I must do well at school if I am to succeed in later life.	-0.25**	0.06
Attribution of failure to external factors	No. 13	When I do poorly in school, it is because the schoolwork is hard.	0.22*	0.01
Self-worth	No. 30	I fail in school subjects because I do not make a serious attempt in schoolwork.	0.10	0.26**
Helplessness	No. 32	There is no point in working hard at school because it makes no difference in getting a good result.	0.26**	0.15
Lack of self-efficacy	No. 36	I find it difficult to keep my mind on schoolwork.	0.22	0.07
	No. 64	My schoolwork seems to be so full of difficulties that I think I have to give up.	0.19*	0.03
Ego-oriented	No. 44	I work hard at school to being honour to my parents.	-0.20*	-0.03

Hopelessness	No. 48	I never experience any academic success and there is no reason to believe I will get the breaks in the future.	0.21*	0.06
Work avoidance	No. 51	I could do better in my schoolwork but I am not prepared to try harder.	0.29**	0.01
Extrinsic value for the purpose of education	No. 69	School should prepare us to earn more money.	0.11	0.29**

Note: **Correlation is significant at the 0.01 level; *Correlation is significant at the 0.05 level.

Conclusion

The analysis of students' responses to questionnaires reported in this chapter showed that both students in the practical and band 5 schools adopted broadly similar motivational styles. About one-third of variance is accounted by maladaptive motivation for both students in practical and band 5 schools. However, attributing failure to difficult school tasks and holding negative emotion towards schoolwork would be the major components of motivation for learning for practical school students. On the other hand, self-worth motive and negative attitude towards schooling were immanent features of motivation for band 5 school students. A large proportion of students of the sample students were from working class background whose parents were of low educational level. About one-third of variance is accounted by malapdative motivation for both students in practical and band 5 schools. About 10 % of variance is accounted for by negative attitude towards schoolwork for practical school students while the same proportion is accounted for by self-worth motivation for band 5 school students. There were strong relationships between maladaptive

motivational dimensions. When comparing students' motivation between practical and band 5 schools, it was found that band 5 school students were more likely to adopt self-worth motive and to have negative attitude towards schooling. These students were more likely to leave their schoolwork to the last minute and wished to get out of schoolwork as soon as possible. With regard to students in practical schools, students seemed to adopt learned helpless motivation and accompanied by negative emotion. They were more likely to attribute their failure to the difficulty of the schoolwork; they felt nervous when taking school examination and ashamed when tackling schoolwork.

It was also found that the same cohort of S. 1 students in practical school students had further deterioration in their negative attitude towards schoolwork over a half-year period while their S. 2 counterparts were more likely to have a feeling of lack of self-efficacy. However, students in band 5 schools had a positive change in their motivation for learning, for example, in the dimensions of task-oriented motivation and positive attitude towards schoolwork. There was also a decrease in maladaptive motivation such as work avoidance, learned helplessness and negative attitude towards schooling. For S. 2 students in band 5 schools, there was a significant increase in task-orientation. Evidence from this study showed that students in band 5 schools, compared with their counterparts in practical schools, showed positive change in motivation for learning. As far as academic subjects were concerned, mathematics was related to internal dimensions of motivation for learning in band 5 students such as effort and ability while Chinese was significantly in connection with parental support, learned helplessness and work avoidance.

In sum, students in practical and band 5 schools showed some differences in their maladaptive motivational styles. The next chapter makes further analysis of students' motivational behaviour from the perspective of teachers' perceptions.

Chapter Six

Results: Part II

Teachers' Perceptions of Students' Motivation and Disruptive Behaviours

Introduction

The second part of the analysis will be based on the data obtained from responses to the questionnaire for teachers. The subjects are teachers from the 4 sample schools, namely two practical and two band 5 schools. They were asked to complete questionnaires in December 1999. The objective was to investigate whether there were differences in teachers' perceptions of students' motivational styles and disruptive behaviours. Four questions about teachers' attitudes to students were also included in the questionnaire. A total of 102 teachers completed the questionnaires, the number of teachers from each sample school is shown in Table 6.1:

Table 6.1. *Numbers of teachers completing the questionnaires*

	Practical Schools		**Band-5 Schools**	
School Name	School A	School B	School C	School D
No. of teachers	20	30	22	30
Sub-total	50		52	

Teachers' Perceptions of Students' Motivational Behaviour

Analysis of Teachers' Perceptions of Students' Motivational Behaviours

Table 6.2 shows the perceptions of teachers in Band 5 and Practical Schools combined on students' motivational behaviour. The mean scores of individual items were computed by assigning values for each response on the Likert Scale: 5 for completely agree, 4 for agree, 3 for no idea, 2 for disagree and 1 for completely disagree. The effect size was also calculated for each item by finding the difference between the mean score of each item and the all-item mean in terms of the standard deviation of all 25 items. From the four highest ratings on the teachers' questionnaire, it can be seen that teachers from the combined samples of practical and band 5 schools reported themselves as having a positive attitude towards students. Items included treating each student as valuable and unique, endeavouring to develop students' sense of responsibility, guiding students to be more co-operative in class, and using encouragement in teaching and focusing on students' strengths (item rankings, 1, 2, 3, and 4). As these four items had differences of more than one standard deviation from the sample mean, they are considered to be significant in accordance with Cohen's (1988) argument that 0.8 standard deviation from the mean represents a large effect. However, most teachers agreed that their students adopted a work avoidance motivation and were of low ability, as indicated in items ranked 5 to 10; all items had large effect sizes greater than 0.8. Teachers had a perception that their students exhibited maladaptive behaviours such as not making much effort in their study, making excuses

for not completing schoolwork, giving up when tackling school task, underachieving in regard to their ability and being troublesome in class. Moreover, items on students' positive motivation were rated at the bottom of the list. They found students difficult to motivate, for example, Item 25 stating that 'many students like difficult schoolwork because they find it more interesting', was ranked 25 on the bottom list and had an effect size greater than 0.86 standard deviation unit. On the whole, the practical and band 5 school students were perceived by teachers as unmotivated, adopting maladaptive motivation towards learning.

Table 6.2 Item analysis of teachers' perceptions of students' motivation (N=102)

Rank order	Item No.	Item	Mean item rating (s.d.)	Effect size # (All-item mean=2.93, all- item s.d.=0.90)	Pearson correlation of individual item with overall teachers' perception of students' motivation
1	8	I treat each of my students as valuable and unique.	4.42 (0.55)	1.66	0.43**
2	9	I endeavour to develop students' sense of responsibility and make them responsible for their behaviour.	4.42(0.55)	1.66	0.34**
3	10	When I manage students with behaviour problems, I guide them to be more cooperative in class.	4.15(0.59)	1.36	0.25*
4	7	I aim to use encouragement in my teaching and focus on students' strengths.	4.14(0.51)	1.34	0.39**
5	2	Many students do not seem to make much effort and take their study seriously.	4.11(0.77)	1.31	0.26**
6	3	Many students prefer easy schoolwork that can be done with little effort.	3.99(0.93)	1.18	0.31**
7	15	Many students in the class are underachieving in relation to their ability.	3.99(0.74)	1.18	0.53**
8	4	Many students make excuses for not completing schoolwork.	3.85(0.97)	1.02	0.40**

9	18	Many students are troublesome in class, hindering other students' work.	3.71(1.00)	0.87	0.44**
10	17	Many students in the class give up or won't try in the belief that they lack the ability to tackle the task.	3.67(0.93)	0.82	0.46**
11	12	Many students are indolent in class and do not show any effort in schoolwork.	3.57(0.98)	0.71	0.29**
12	22	Many students want their work to be better than their classmates' work.	3.55(0.73)	0.69	0.13
13	19	Many students in the class do not make any serious attempt to tackle their work at school in order to avoid the risk of failure.	3.54(0.90)	0.68	0.56**
14	16	Many students in the class lack ability to cope with their schoolwork.	3.42(0.97)	0.54	0.32**
15	5	Many students volunteer to answer questions and provide answers when called on in class.	3.38(1.02)	0.50	0.27**
16	25	Many students are unwilling to ask help from teachers even when help is needed	3.23(0.96)	0.33	0.25*
17	6	There are many noisy, badly behaved students in the school.	3.22(1.15)	0.32	0.26**
18.	24	In academic areas, many students do not try hard to improve their performance.	3.19(0.82)	0.29	0.18
19	11	Many students enjoy their schoolwork in class.	3.18(0.88)	0.28	0.26**
20	21	I find many students in the class difficult or impossible to motivate.	2.75(0.87)	0.51	0.08
21.	13	Many students can concentrate for the whole period.	2.71(0.93)	0.13	0.28**
22	14	Many students can figure out how to do school assignments on their own.	2.68(0.97)	0.28	0.14
23	1	Many students show interest in their studies.	2.61(0.96)	0.36	0.32**
24	20	Many students in the class will make genuine efforts to overcome the problem when they do not understand something or get a low mark	2.30(0.79)	0.70	0.19
25	23	Many students like difficult schoolwork because they find it more interesting.	2.16(0.71)	0.86	0.19

Note: **Correlation is significant at 0.01 level
*Correlation is significant at 0.05 level
The effect size is calculated by obtaining the difference between the individual item mean and the whole item mean (2.93) in all-item standard deviation units (0.90), e.g. Effect size of Item No. 8 = (4.42-2.93)/0.90= 1.66

Correlations among Items of Teachers' Questionnaire

Pearson product-moment correlations were computed to examine teachers' perceptions of students' motivational styles. The results are presented in Table 6.3. It was found that there were strong relationships between items on teachers' perception of students' mastery-oriented motivation, for example, teachers perceived those students who showed interest in their studies as more likely to answer teachers' questions voluntarily ($r=0.29$, $p<0.01$), to enjoy schoolwork ($r=0.27$, $p<0.01$) and to prefer difficult schoolwork ($r=0.25$, $p<0.01$). These students were more likely to concentrate for the whole class period ($r=0.37$, $p<0.01$) and to want their schoolwork to be better than their classmates ($r=0.26$, $p<0.01$). Students who volunteered to answer teachers' questions were more likely to enjoy schoolwork in class($r=0.29$, $p<0.01$), to attempt difficult schoolwork ($r=0.26$, $p<0.01$) and to concentrate for class periods ($r=0.28$, $p<0.01$). Furthermore, students who could concentrate for the whole class period were more likely to figure out how to do school assignments on their own ($r=0.56$, $p<0.01$).

As expected, teachers viewing students as being indolent in class and not showing any effort in schoolwork had a strong correlation with items related to work avoidance: students were less likely to make much effort in schoolwork and take their study seriously ($r=0.33$, $p<0.01$); they were more likely to prefer easy schoolwork ($r=0.38$, $p<0.01$) and unlikely to try hard to improve their performance ($r=0.36$, $p<0.01$). Moreover, these students were unlikely to show self-efficacy; for example, being indolent in class and not showing any effort had a negative relationship with

concentrating for the whole period (r= -0.42, p<0.01) and figuring out school assignments on their own (r= -0.32, p<0.01). Students who were reported by teachers as being indolent in class were likely to be noisy and behave badly in school (r=0.35, p<0.01), to exhibit troublesome behaviour in class (r= 0.39, p<0.01) and to be difficult or impossible to motivate (r=0.27, p<0.01). Teachers' responses on questionnaires suggested that they could distinguish between students' maladaptive motivation and disruptive behaviour.

It was also found that teachers' perceptions of the maladaptive motivational style, such as learned helplessness (Item G), was significantly related to self-worth motivational style (Item M) (r=0.53, p<0.01). Teachers perceived learned helpless students (Item G) as more likely to lack ability to cope with schoolwork (Item R), (r= 0.39, p<0.01); and to make trouble in class (Item T), (r=0.34, p<0.01). Teachers were more likely to have a perception that learned hopeless students (Item H) were more likely to be underachievers (Item Q), (r= 0.27, p<0.01). Teachers had a notion that self-worth motivated students (Item L) were less likely to figure out school assignments on their own (Item O), (r=-0.26, p<0.01). These students were more likely to be underachievers (Item Q), (r=0.28, p<0.01) and to be troublesome in class (Item S), (r= 0,32, p<0.01). Moreover, teachers opined that troublesome students (Item T) were difficult or impossible to motivate (Item U), (r=0.27, p<0.01). Teachers who reported more students difficult or impossible to motivate(Item U) were less likely to use encouragement and focus on their strengths (Item V), (r= -0.33, p<0.01). Based on the above findings, teachers showed a

negative attitude towards students who adopted maladaptive motivational styles.

However, it was more encouraging to find that there were significant relationships between teachers' positive teaching strategies. Teachers who aimed at using encouragement in class and focusing on students' strengths were more likely to treat each student as valuable and unique (Item W), ($r=0.50$, $p<0.01$), endeavouring to develop students' sense of responsibility (Item X), ($r=0.32$, $p<0.01$), and guiding students to be more co-operative when managing students' problem behaviour (Item Y), ($r=0.26$, $p<0.01$). Teachers who treated each student as valuable and unique (Item W) were more likely to develop in students a sense of responsibility (Item X), ($r=0.48$, $p<0.01$).

Table 6.3. *A correlation matrix of teachers' perceptions of students' motivational styles. (N=102)*

			A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y
Intrinsic motivation	A	Many students show interest in their studies.	1	0.29 **	0.27 **	-0.24 *	0.15	0.25 **	0.04	-0.03	-0.04	0.02	-0.22 *	0.00	0.15	0.37 **	0.24 *	0.26 **	0.11	-0.12	-0.21 *	-0.04	-0.14	0.23 *	0.11	0.09	-0.06
	B	Many students volunteer to answer questions and provide answers when called on in class.		1	0.29 **	-0.21 *	0.08	0.26 **	-0.08	-0.02	-0.14	-0.19	-0.12	-0.06	-0.01	0.28 **	0.10	0.19	0.19	-0.04	-0.03	-0.03	-0.23	0.22	0.17	0.15	0.07
	C	Many students enjoy their schoolwork in class.			1	-0.30 **	0.02	0.05	0.06	0.10	-0.15	-0.13	-0.18	-0.10	0.20 *	0.44 **	0.33 **	0.26 **	0.14	0.02	-0.25	-0.12	-0.39 **	0.28 **	0.17	0.01	0.06
Lacking efforts	D	Many students are indolent in class and do not show any effort in schoolwork.				1	-0.07	-0.20 *	0.15	-0.00	0.33 **	0.38 **	0.36 **	0.25 *	0.14	-0.42 **	-0.32 **	-0.03	0.02	0.00	0.35 **	0.39 **	0.27 **	-0.02	-0.06	-0.01	0.11
Mastery oriented	E	Many students in the class will make genuine efforts to overcome the problem when they do not understand something or get a low mark					1	0.32 **	-0.04	-0.04	0.01	-0.12	-0.06	0.03	0.06	0.07	0.18	0.09	0.14	-0.07	-0.07	0.01	-0.08	0.08	-0.02	-0.11	-0.08
	F	Many students like difficult schoolwork because they find it more interesting.						1	0.05	-0.04	-0.16	-0.30 **	-0.02	-0.08	0.10	0.29 **	0.22	-0.05	0.19	-0.03	-0.07	-0.07	-0.00	0.08	-0.02	0.03	-0.06
Learned Helpless	G	Many students in the class give up or won't try in the belief that they lack the ability to tackle the task.							1	0.01	0.08	0.15	0.14	-0.01	0.53 **	0.10	0.03	-0.11	0.17	0.39 **	0.04	0.34 **	-0.03	0.12	0.16	0.08	-0.13

			A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y
Learned Hopeless	H	Many students are unwilling to ask help from teachers even when help is needed.								1	-0.09	-0.02	0.08	0.11	0.03	0.12	0.02	-0.04	0.27 **	0.04	0.02	-0.06	0.07	0.08	0.14	0.01	0.05
Work Avoidance	I	Many students do not seem to make much effort and take their study seriously.									1	0.28 **	0.16	0.23 *	0.07	-0.19	-0.10	0.05	0.11	0.01	0.06	0.20 *	0.06	0.14	0.01	0.10	0.01
	J	Many students prefer easy schoolwork that can be done with little effort.										1	0.28 **	0.20 *	0.17	-0.20 *	-0.16	-0.08	0.10	-0.01	0.13	0.24 *	0.25 *	-0.02	0.01	0.05	0.09
	K	In academic areas, many students do not try hard to improve their performance.											1	0.24 *	-0.15	-0.28 **	-0.32 **	-0.19	0.04	0.04	0.25 *	0.15	0.36	-0.11	0.02-	-0.20 *	0.07
Self Worth	L	Many students make excuses for not completing schoolwork.												1	0.20	-0.19	-0.26 **	-0.04	0.28 **	0.13	0.32 **	0.18	0.04	0.04	0.14	0.06	0.14
	M	Many students in the class do not make any serious attempt to tackle their work at school in order to avoid the risk of failure.													1	0.04	0.01	0.01	0.25*	0.31 **	0.01	0.34 **	-0.02	0.16	0.16	0.28 **	0.15
Self Efficacy	N	Many students can concentrate for the whole period.														1	0.56 **	0.12	0.33* *	0.10	-0.35 **	-0.17	-0.21	0.23 *	0.23 *	-0.01	-0.01
	O	Many students can figure out how to do school assignments on their own.															1	0.26 **	0.22*	0.01	-0.32	-0.30 **	-0.25	0.05	0.02	0.04	-0.16
Ego Orientation	P	Many students want their work to be better than their classmates' work.																1	0.03	-0.25 *	-0.22 *	-0.17	-0.22	0.17	0.03	0.09	0.16

			A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y
Low Ability	Q	Many students in the class are underachieving in relation to their ability.																	1	0.14	0.06	-0.10	-0.17	0.19	0.28**	0.20*	-0.04
	R	Many students in the class lack ability to cope with their schoolwork.																		1	0.18	0.09	0.07	-0.04	0.18	0.09	-0.09
Troublesome Behaviours	S	There are many noisy, badly behaved students in the school.																			1	0.32**	0.20*	-0.12	0.01	0.07	0.09
	T	Many students are troublesome in class, hindering other students' work.																				1	0.27**	0.10	0.100	0.16	0.18
Difficult to Motivate	U	I find many students in the class difficult or impossible to motivate.																					1	-0.33**	-0.15	-0.11	0.03
Teaching Strategies	V	I aim to use encouragement in my teaching and focus on students' strengths.																						1	0.50**	0.32**	0.26**
	W	I treat each of my students as valuable and unique.																							1	0.48**	0.23*
	X	I endeavour to develop students' sense of responsibility and make them responsible for their behaviour.																								1	0.27**
	Y	When I manage students with behaviour problems, I guide them to be more cooperative in class.																									1

Factor Analysis of Teachers' Perceptions of Students' Motivation

The 40-item teachers' questionnaire had a high reliability on Cronbach's Alpha of 0.71. A principal components analysis was carried out on the first 25 items of teachers' perception of students' motivation in order to obtain the factorial structure of these variables. An analysis of the data of all teachers (N=102) who completed the teachers' questionnaires is presented in Table 6.4. By using varimax rotation, eight components were found with eigenvalues greater than 1.0. They accounted for 62.44 % of the total variance explained. The 25 items could be grouped into eight components, with loadings of 0.4 or greater. About 40% of the total variance could be explained by maladaptive motivational styles such as 'lack of self-efficacy', 'learned helplessness', 'work avoidance', 'learned hopelessness', and 'lack of motivation'. It is thus, fair to say that the teachers' questionnaire used in this study would be a reliable tool to measure teacher's perceptions of students' motivation.

Table 6.4. *Factor loadings for Principal Components Analysis for all teachers (N=102)*

	Motivational Items	**Component**							
		1	2	3	4	5	6	7	8
Factor 1: ***Lack of self-efficacy***									
6	There are many noisy, badly behaved students in the school.	**0.72**	0.02	0.11	-0.03	-0.21	0.04	0.07	0.04
14	Many students can figure out how to do school assignments on their own.	**-0.67**	-0.03	0.06	0.02	0.13	0.23	0.16	-0.24
4	Many students make excuses for not completing schoolwork.	**0.61**	0.07	0.08	0.03	0.09	0.12	0.33	-0.14
13.	Many students can concentrate for the whole period.	**-0.59**	0.12	0.16	-0.28	0.24	0.24	0.36	-0.05
24.	In academic areas, many students do not try hard to improve their performance.	**0.40**	-0.21	-0.02	0.21	-0.06	-0.18	0.39	0.37

Factor 2 :Teaching strategies									
9	I endeavour to develop students' sense of responsibility and make them responsible for their behaviour.	-0.02	**0.83**	0.11	0.08	-0.11	0.01	-0.10	-0.08
8	I treat each of my students as valuable and unique.	-0.01	**0.75**	0.14	-0.05	0.02	-0.06	0.29	-0.05
7	I aim to use encouragement in my teaching and focus on students' strengths.	-0.06	**0.63**	0.07	0.07	0.36	0.10	0.08	-0.08
10	When I manage students with behaviour problems, I guide them to be more cooperative in class.	0.23	**0.51**	-0.13	-0.08	0.30	-0.16	-0.02	0.33
Factor 3: Learned helplessness									
17	Many students in the class give up or won't try in the belief that they lack the ability to tackle the task.	-0.07	0.00	**0.83**	0.11	-0.03	-0.02	0.03	0.07
19	Many students in the class do not make any serious attempt to tackle their work at school in order to avoid the risk of failure.	0.05	0.02	**0.75**	0.12	0.17	0.11	-0.06	0.04
16	Many students in the class lack ability to cope with their schoolwork.	0.09	0.03	**0.63**	-0.14	-0.33	-0.10	0.19	-0.21
Factor 4: Work avoidance									
2	Many students do not seem to make much effort and take their study seriously.	0.11	0.11	0.02	**0.75**	-0.01	0.05	-0.05	-0.09
3	Many students prefer easy schoolwork that can be done with little effort.	0.06	0.00	0.16	**0.60**	0.06	-0.19	0.13	0.38
12	Many students are rather lazy, not making effort in schoolwork.	0.50	-0.05	0.135	**0.52**	-0.19	-0.08	-0.03	0.28
Factor 5:Mastery orientation									
11	Many students enjoy their schoolwork in class.	-0.25	0.03	0.23	-0.28	**0.66**	-0.10	0.19	-0.21
22	Many students want their work to be better than their classmates' work.	-0.16	0.08	-0.20	0.18	**0.64**	0.01	-0.11	-0.16
1	Many students show interest in their studies.	-0.31	0.10	0.09	-0.01	**0.47**	0.04	0.00	0.11
5	Many students volunteer to answer questions and provide answers when called on in class.	0.10	0.21	-0.05	-0.42	**0.43**	0.31	0.07	-0.09

Factor 6: Task orientation									
23	Many students like difficult schoolwork because they find it more interesting.	-0.14	0.06	0.05	-0.03	-0.09	**0.77**	-0.02	0.06
20	Many students in the class will make genuine efforts to overcome the problem when they do not understand something or get a low mark	0.02	-0.11	-0.04	0.09	0.10	**0.70**	-0.01	-0.08
Factor 7 Learned hopelessness									
25	Many students are unwilling to ask help from teachers even when help is needed	-0.02	0.07	-0.05	-0.10	-0.01	-0.12	**0.70**	0.13
15	Many students in the class are underachieving in relation to their ability.	-0.01	0.21	0.19	0.20	0.02	0.34	**0.65**	-0.23
Factor 8 Lack of motivation									
21	I find many students in the class difficult or impossible to motivate.	0.10	-0.16	-0.03	0.09	-0.38	0.03	0.07	**0.74**
18	Many students are troublesome in class, hindering other students' work.	0.38	0.17	0.46	0.13	0.04	0.06	-0.23	**0.47**
	Eigenvalue	**2.52**	**2.20**	**2.16**	**1.92**	**1.90**	**1.74**	**1.59**	**1.58**
	% of Variance Explained	**10.08**	**8.81**	**8.63**	**7.66**	**7.61**	**6.96**	**6.37**	**6.32**

Comparison of Teachers' Perceptions of Students' Motivational Styles

In view of the fact that only about 100 teachers were involved in the teachers' survey, the factors generated from the above principal components analysis were not used for comparison purpose. Instead, the 13 motivational dimensions derived from the theoretical concepts were used for analysis purpose. Teachers' perceptions of students' motivational styles were analysed by using t-test to conduct comparisons within each type of schools and between practical and band 5 schools. The results are presented in the following sections.

Differences between the Mean Scores on Teachers' Perceptions of Students' Motivation for Two Practical Schools

Independent t-tests were conducted to compare the mean scores of teachers' perception of students' motivation on the questionnaire for the two practical schools. The results are presented in Table 6.5. It was found that students in Practical School B were perceived by teachers to exhibit significantly more evidence of self-worth motivation; these students were more likely to make excuses for not completing schoolwork (Item L), ($t=-2.29$, $p<0.027$). However, teachers in Practical School B were significantly more likely to use a positive strategy in teaching, namely, endeavouring to develop students' sense of responsibility and to make students responsible for their behaviour (Item X), ($t=-2.03$, $p<0.048$).

Table 6.5. *Comparisons of mean scores using independent t-Tests between students from two practical schools on motivational items*

Categories		Item	Mean scores		t-value	df	Significance
			Practical School A (N=20)	Practical School B (N=30)			
Intrinsic motivation	A	Many students show interest in their studies.	2.75	2.4	1.38	48	NS
	B	Many students volunteer to answer questions and provide answers when called on in class.	3.25	3.47	-0.73	48	NS
	C	Many students enjoy their schoolwork in class.	3.05	3.17	-0.44	48	NS
Lacking effort	D	Many students are indolent in class and do not show any effort in schoolwork.	3.35	3.47	-0.38	48	NS
Mastery oriented	E	Many students in the class will make genuine efforts to overcome the problem when they do not understand something or get a low mark	2.5	2.17	1.28	48	NS
	F	Many students like difficult schoolwork because they find it more interesting.	2.75	2.20	0.20	48	NS
Learned Helpless	G	Many students in the class give up or won't try in the belief that they lack the ability to tackle the task.	3.70	3.43	0.91	48	NS

Learned Hopeless	H	Many students are unwilling to ask help from teachers even when help is needed	2.90	2.87	0.13	48	NS
Work Avoidance	I	Many students do not seem to make much effort and take their study seriously.	3.85	4.13	-1.29	48	NS
	J	Many students prefer easy schoolwork that can be done with little effort.	3.80	3.80	0.00	48	NS
	K	In academic areas, many students do not try hard to improve their performance.	3.00	3.07	-0.27	48	NS
Self Worth	L	Many students make excuses for not completing schoolwork.	3.60	4.20	-2.29	48	P<0.027
	M	Many students in the class do not make any serious attempt to tackle their work at school in order to avoid the risk of failure.	3.45	3.47	-0.06	48	NS
Self Efficacy	N	Many students can concentrate for the whole period.	2.60	2.57	0.12	48	NS
	O	Many students in the class can succeed in their schoolwork when they work independently.	2.75	2.53	0.71	48	NS
Ego Orientation	P	Many students want their work to be better than their classmates' work.	3.40	3.67	-1.14	48	NS
Low Ability	Q	Many students in the class are underachieving in relation to their ability.	3.95	3.93	0.09	48	NS
	R	Many students in the class lack ability to cope with their schoolwork.	3.30	3.50	-0.73	48	NS
Troublesome Behaviours	S	There are many noisy, badly behaved students in the school.	2.95	3.47	-1.57	48	NS
	T	Many students are troublesome in class, hindering other students' work.	3.60	3.63	-0.11	48	NS
Difficult to Motivate	U	I find many students in the class difficult or impossible to motivate.	2.60	2.70	-0.39	48	NS
Teaching Strategies	V	I aim to use encouragement in my teaching and focus on students' strengths.	4.05	4.03	0.11	48	NS
	W	I treat each of my students as valuable and unique.	4.30	4.40	-0.71	48	NS
	X	I endeavour to develop students' sense of responsibility and make them responsible for their behaviour.	4.15	4.47	-2.03	48	P<0.048
	Y	When I manage students with behaviour problems, I guide them to be more cooperative in class.	4.10	4.03	0.37	48	NS

Differences between the Mean Scores on Teachers' Perceptions of Students' Motivation for Two Band 5 Schools

Independent t-tests were also conducted to compare the mean scores of teachers' perceptions of students' motivation on the questionnaire for the two band 5 schools. The results are presented in Table 6.6. It was found that students in Band 5 School D were perceived by teachers to exhibit significantly more mastery-oriented motivation. They were more likely to make genuine efforts to overcome the problem when they did not understand something or got a low mark, (Item E), ($t=-3.05$, $p<0.004$); and they were significantly more likely to tackle difficult schoolwork (Item F), ($t=3.99$, $p<0.000$). Moreover, teachers in Band 5 School D perceived their students as more likely to figure out school assignments on their own (Item O), ($t=-2.33$, $p< 0.024$). However, more students were perceived by teachers as underachievers in view of their ability (Item Q) in Band 5 School D, ($t=-2.08$, $p<0.043$).

Table 6.6. *Comparisons of mean scores using independent t-Tests between students from two band 5 schools on motivational items*

Categories		Item	Mean scores		t-value	df	Significance
			Band 5 School C (N=22)	Band 5 School D (N=30)			
Intrinsic motivation	A	Many students show interest in their studies.	2.68	2.63	0.05	50	NS
	B	Many students volunteer to answer questions and provide answers when called on in class.	3.55	3.27	0.96	50	NS
	C	Many students enjoy their schoolwork in class.	3.09	3.33	-1.01	50	NS
Lacking effort	D	Many students are indolent in class and do not show any effort in schoolwork.	3.86	3.60	1.05	50	NS

Mastery oriented	E	Many students in the class will make genuine efforts to overcome the problem when they do not understand something or get a low mark.	2.00	2.53	-3.05	50	P<0.004
	F	Many students like difficult schoolwork because they find it more interesting.	1.77	2.33	-3.99	50	P<0.000
Learned Helpless	G	Many students in the class give up or won't try in the belief that they lack the ability to tackle the task.	3.59	3.93	-1.50	50	NS
Learned Hopeless	H	Many students are unwilling to ask help from teachers even when help is needed	3.32	3.73	-1.64	50	NS
Work Avoidance	I	Many students do not seem to make much effort and take their study seriously.	4.18	4.20	-0.08	50	NS
	J	Many students prefer easy schoolwork that can be done with little effort.	4.32	4.07	1.02	50	NS
	K	In academic areas, many students do not try hard to improve their performance.	3.55	3.17	1.82	50	NS
Self Worth	L	Many students make excuses for not completing schoolwork.	3.77	3.73	0.14	50	NS
	M	Many students in the class do not make any serious attempt to tackle their work at school in order to avoid the risk of failure.	3.59	3.63	-0.18	50	NS
Self Efficacy	N	Many students can concentrate for the whole period.	2.55	3.03	1.93	50	NS
	O	Many students can figure out how to do school assignments on their own.	2.41	2.97	-2.33	50	P<0.024
Ego Orientation	P	Many students want their work to be better than their classmates' work.	3.50	3.57	-0.37	50	NS
Low Ability	Q	Many students in the class are underachieving in relation to their ability.	3.77	4.23	-2.08	50	P<0.043
	R	Many students in the class lack ability to cope with their schoolwork.	3.45	3.40	0.19	50	NS
Troublesome Behaviours	S	There are many noisy, badly behaved students in the school.	3.36	3.03	1.02	50	NS

	T	Many students are troublesome in class, hindering other students' work.	4.00	3.63	1.38	50	NS
Difficult to Motivate	U	I find many students in the class difficult or impossible to motivate.	2.91	2.80	0.44	50	NS
Teaching Strategies	V	I aim to use encouragement in my teaching and focus on students' strengths.	4.18	4.27	-0.64	50	NS
	W	I treat each of my students as valuable and unique.	4.45	4.50	-0.26	50	NS
	X	I endeavour to develop students' sense of responsibility and make them responsible for their behaviour.	4.50	4.50	0.00	50	NS
	Y	When I manage students with behaviour problems, I guide them to be more cooperative in class.	4.27	4.20	0.47	50	NS

Differences in Teachers' Perceptions of Students' Motivation for Learning between Practical Schools and Band 5 Schools

Although there were differences in teachers' perceptions of students' motivation for learning within each type of school, few consistent patterns could be derived from the data analysis. Independent t-test and effect size techniques were conducted to compare the mean scores of the teachers' perceptions of their students' motivational styles between practical and band 5 schools. A comparison was made for each of the 25 items of the teachers' questionnaires; the results are presented in Table 6.7. The results showed that there were significant differences in two of the maladaptive items. Students in band 5 schools were more likely to be perceived by teachers to adopt learned-hopelessness (Item H: many students are unwilling to ask help from teachers even when help is needed), ($t = -3.78$, $p<0.000$ with effect size=0.76); and work-avoidance motivation (Item J: many students prefer easy schoolwork that can be done with little effort), ($t = -2.06$, $p<0.042$ with effect size=0.39).

Table 6.7. *Comparison of mean scores using independent t-tests between practical and band 5 school students on motivational items (N=102)*

Categories		Item	Mean scores (Standard Deviation)		t-value	df	Significance.	Effect-size
			Practical School (N=50)	Band 5 School (N=52)				
Intrinsic motivation	A	Many students show interest in their studies.	2.54 (0.89)	2.67 (1.02)	-0.70	100	NS	0.15
	B	Many students volunteer to answer questions and provide answers when called on in class.	3.38 (1.03)	3.39 (1.03)	-0.23	100	NS	0.01
	C	Many students enjoy their schoolwork in class.	3.12 (0.92)	3.23 (0.85)	-0.63	100	NS	0.12
Lacking efforts	D	Many students are indolent in class and do not show any effort in schoolwork.	3.42 (1.05)	3.71 (0.89)	-1.51	100	NS	0.28
Mastery oriented	E	Many students in the class will make genuine efforts to overcome the problem when they do not understand something or get a low mark	2.30 (0.91)	2.31 (0.67)	-0.49	100	NS	0.01
	F	Many students like difficult schoolwork because they find it more interesting.	2.22 (0.84)	2.10 (0.57)	-0.88	100	NS	0.14
Learned Helpless	G	Many students in the class give up or won't try in the belief that they lack the ability to tackle the task.	3.54 (1.01)	3.79 (0.82)	-1.36	100	NS	0.25
Learned Hopeless	H	Many students are unwilling to ask help from teachers even when help is needed	2.88 (0.90)	3.56 (0.92)	-3.78	100	P<0.000	0.76
Work Avoidance	I	Many students do not seem to make much effort and take their study seriously.	4.02 (0.77)	4.19 (0.77)	-1.13	100	NS	0.22
	J	Many students prefer easy schoolwork that can be done with little effort.	3.80 (0.95)	4.17 (0.88)	-2.06	100	P<0.042	0.39
	K	In academic areas, many students do not try hard to improve their performance.	3.04 (0.86)	3.33 (0.76)	-1.79	100	NS	0.34
Self Worth	L	Many students make excuses for not completing schoolwork.	3.96 (0.95)	3.75 (0.99)	1.10	100	NS	0.22

	M	Many students in the class do not make any serious attempt to tackle their work at school in order to avoid the risk of failure.	3.46 (0.97)	3.62 (0.82)	-0.87	100	NS	0.16
Self Efficacy	N	Many students can concentrate for the whole period.	2.58 (0.93)	2.83 (0.92)	-1.35	100	NS	0.27
	O	Many students can figure out how to do school assignments on their own.	2.62 (1.05)	2.73 (0.89)	-0.58	100	NS	0.10
Ego Orientation	P	Many students want their work to be better than their classmates' work.	3.56 (0.81)	3.54 (0.64)	0.15	100	NS	0.02
Low Ability	Q	Many students in the class are underachieving in relation to their ability.	3.94 (0.65)	4.04 (0.82)	-0.67	100	NS	0.15
	R	Many students in the class lack ability to cope with their schoolwork.	3.42 (0.95)	3.43 (1.00)	-0.02	100	NS	0.01
Troublesome Behaviours	S	There are many noisy, badly behaved students in the school.	3.26 (1.16)	3.17 (1.15)	0.38	100	NS	0.08
	T	Many students are troublesome in class, hindering other students' work.	3.62 (1.05)	3.79 (0.96)	-0.85	100	NS	0.16
Difficult to Motivate	U	I find many students in the class difficult or impossible to motivate.	2.66 (0.87)	2.85 (0.87)	-1.08	100	NS	0.22
Teaching Strategies	V	I aim to use encouragement in my teaching and focus on students' strengths.	4.04 (0.53)	4.23 (0.47)	-1.92	100	NS	0.36
	W	I treat each of my students as valuable and unique.	4.36 (0.48)	4.48 (0.61)	-1.10	100	NS	0.25
	X	I endeavour to develop students' sense of responsibility and make them responsible for their behaviour.	4.34 (0.56)	4.50 (0.54)	-1.47	100	NS	0.29
	Y	When I manage students with behaviour problems, I guide them to be more cooperative in class.	4.06 (0.62)	4.23 (0.55)	-1.48	100	NS	0.27

The effect size of each column is obtained by dividing the difference between the means of practical and band 5 schools by the standard deviation of practical schools of that dimension.

Mean Ratings and Correlations of Teachers' Perceptions of Students' Disruptive Behaviour

The mean ratings of teachers' perceptions of students' disruptive behaviour were based on the number of students who exhibited disruptive behaviours within a week (i.e. 5 for 10 or more, 4 for 7 to 9, 3 for 4 to 6, 2 for 1 to 3, and 1 for none), Table 6.8. It seemed that few students in both practical and band 5 schools as a whole exhibited serious behavioural problems. Only minor discipline problems were more frequently reported by teachers, for example, failing to hand in assignments, being talkative in class, day-dreaming, cheating, using bad language, and falling asleep in class, ranking from 1 to 4 at the top of the list. All individual behavioural items had significantly high correlations with the whole behavioural scale.

Table 6.8. *Mean rating of the teachers' perceptions of students' disruptive behaviour (N=102)*

Rank No.	Item	Mean Rating (Standard Deviation)	Pearson correlation with the overall behavioural measures
1	40. Failure to hand in assignments	3.21 (1.12)	0.68**
2	34 Being talkative in class	3.11 (1.10)	0.74**
3	29. Day-dreaming	2.89 (1.02)	0.69**
4	28. Cheating	2.19 (1.11)	0.77**
5	33. Use of bad language	2.10 (1.09)	0.74**
6	26 Sleeping in class	2.08 (0.77)	0.50**
7	39. Incessantly asking questions and making noises.	2.07 (0.79)	0.67**
8	30. Disobeying teachers' instructions	2.04 (0.88)	0.73**
9	32. Lateness	1.97 (0.72)	0.60**
10	37 Unable to control motions/impulses	1.87 (0.61)	0.49**
11	27 Bullying classmates	1.82 (0.72)	0.74**
12	31. Shouting or yelling in the class	1.75 (0.75)	0.65**
13	38. Showing no response to others	1.61 (0.69)	0.49**
14	35 Truancy	1.45 (0.61)	0.55**
15	36 Reading/possession of obscene magazines, pictures	1.20 (0.45)	0.44**

** Correlation is significant at 0.01 level

Factor Analysis of Measures of Teachers' Perceptions of Students' Disruptive Behaviours

A principal components analysis was conducted for all teachers participating in this study to investigate the factorial structure of teachers' perception of students' disruptive behaviour. By using varimax rotation, four factors were extracted with eigenvalues greater than 1 and loadings for related items greater than 0.4. The factor loadings are shown in Table 6.9. These four factors accounted for 66.46 percentage of variance explained, they could be labelled as 'disruptive classroom behaviour', 'deviant behaviour', 'communication problems' and 'emotional problem'.

Table 6.9. *Factor loadings for Principal Components Analysis on students' behavioural items for all teachers in practical and band 5 schools (N=102)*

	Component			
	1	2	3	4
Factor 1: Disruptive classroom behaviour				
26 Sleeping in class	**0.76**	0.06	0.15	-0.19
30. Disobeying teachers' instructions	**0.73**	0.14	0.24	0.27
34 Being talkative in class	**0.68**	0.17	0.30	0.23
31. Shouting or yelling in the class	**0.60**	0.15	0.01	0.57
27 Bullying classmates	**0.57**	0.45	0.07	0.39
Factor 2: Deviant behaviour				
35 Truancy	0.13	**0.79**	0.09	0.12
32. Lateness	0.31	**0.75**	0.05	-/04
36 Reading/possession of obscene magazines, pictures	0.14	**0.71**	0.21	0.21
33. Use of bad language	0.40	**0.61**	0.18	0.21
Factor 3: Communication problems				
38. Showing no response to others	-0.02	0.06	**0.76**	0.27
39. Incessantly asking questions and making noises.	0.28	0.03	**0.73**	0.34
40. Failure to hand in assignments	0.35	0.31	**0.70**	-0.11
29. Day-dreaming	0.44	0.28	**0.58**	-0.03
Factor 4 :emotional behaviour				
37 Unable to control emotions/impulses	-0.01	0.22	0.21	**0.77**
28. Cheating	0.41	0.33	0.30	**0.56**
Eigenvalue	**3.09**	**2.67**	**2.34**	**1.87**
% of Variance Explained	**20.59**	**17.81**	**15.58**	**12.48**

Comparison of Teachers' Reports on Students' Disruptive Behaviour between Two Practical Schools

A comparison of the 15 items on students' disruptive behaviours was conducted between the two practical schools by using t-test. The results showed that there were no significant differences in students' disruptive behaviour between the two practical schools (Table 6.10).

Table 6.10. Comparisons of mean scores using independent t-test between students from two practical schools on behavioural items (N=50)

Item	Mean Scores		t-value	df	Significance
	Practical School A (N=20)	Practical School B (N=30)			
26 Sleeping in class	2.15	2.37	-1.12	48	NS
27 Bullying classmates	1.85	2.07	-1.05	48	NS
28. Cheating	2.10	2.43	-0.96	48	NS
29. Day-dreaming	2.60	3.13	-1.74	48	NS
30. Disobeying teachers' instructions	2.10	2.17	-0.28	48	NS
31. Shouting or yelling in the class	1.80	1.97	-0.71	48	NS
32. Lateness	2.15	2.07	0.42	48	NS
33. Use of bad language	2.35	2.47	-0.35	48	NS
34. Being talkative in class	3.15	3.33	-0.63	48	NS
35 Truancy	1.60	1.67	-0.17	48	NS
36 Reading/possession of obscene magazines, pictures	1.25	1.10	1.42	48	NS
37 Unable to control emotions/impulses	1.80	1.97	-0.94	48	NS
38. Showing no response to others	1.45	1.53	-0.49	48	NS
39. Incessantly asking questions and making noises.	2.00	2.27	-1.26	48	NS
40. Failure to hand in assignments	3.00	3.43	-1.40	48	NS

Comparison of Teachers' Reports on Students' Disruptive Behaviour between Two Band 5 Schools

When students' disruptive behaviour was compared between the two band 5 schools, School C and School D, it was found that students in Band 5 School C were significantly more likely to exhibit shouting or yelling in class (Item 31), ($t = 2.13$, $p<0.038$) (Table 6.11). From the analysis of teachers' perceptions of students' motivation (Table 6.6) and disruptive behaviour (Table 6.11), it seems that students in Band 5 School D had a higher motivation for learning and fewer students exhibiting problems of disruptive behaviour when compared with their counterparts in Band 5 School C.

Table 6.11. A Comparison of mean scores using independent t-tests between students from two band 5 schools on disruptive behavioural items (N=52)

Item	Mean Score		t-value	df	Significance
	Band 5 School C (N=22)	Band 5 School D (N=30)			
26 Sleeping in class	1.73	2.00	-1.21	50	NS
27 Bullying classmates	1.77	1.60	0.87	50	NS
28. Cheating	2.18	2.00	0.64	50	NS
29. Day-dreaming	2.73	2.97	-0.88	50	NS
30. Disobeying teachers' instructions	1.86	2.00	-0.53	50	NS
31. Shouting or yelling in the class	1.82	1.43	2.13	50	P<0.038
32. Lateness	1.82	1.87	-0.23	50	NS
33. Use of bad language	1.59	1.93	-1.34	50	NS
34. Being talkative in class	3.23	2.77	1.42	50	NS
32. Truancy	1.23	1.33	-0.76	50	NS
36 Reading/possession of obscene magazines, pictures	1.18	1.27	-0.59	50	NS
37 Unable to control emotions/impulses	1.68	1.97	-1.70	50	NS
38. Showing no response to others	1.50	1.87	-1.72	50	NS
39. Incessantly asking questions and making noises.	2.09	1.90	0.82	50	NS
40. Failure to hand in assignments	2.23	3.10	-0.38	50	NS

Comparison of Teachers' Reports on Students' Disruptive Behaviour between Practical Schools and Band 5 Schools

Independent t-tests, together with effect size comparisons, were carried out to compare the mean score on teachers' perceptions of their students' behaviour in practical schools with those of band 5 schools on the 15 related items of the teachers' questionnaire. The results are presented in Table 6.12. The results showed that students in practical schools exhibited more serious disruptive behaviour. Significantly more students in practical schools were reported as showing the following disruptive behaviours: sleeping in class (Item 26)($t = -2.68$, $p<0.009$ with an effect size of 0.59), bullying classmates (Item 27) ($t = 2,18$, $p<0.031$ with an effect size of 0.44), shouting or yelling in class (Item 31) ($t = 2.07$, $p<0.041$ with an effect size of 0.037), use of bad language (Item 33) ($t = 3.06$, $p<0.003$ with an effect size of 0.54), and playing truant (Item 35) ($t = 2.85$, $p<0.005$ with effect size of 0.49).

Table 6.12. *Comparisons of mean scores using independent t-test between practical and band 5 school students on disruptive behavioural items (N=52)*

Item	Mean (Standard Deviation)		t-value	df	Significance	Effect Size #
	Practical School (N=50)	Band 5 School (N=52)				
26 Sleeping in class	2.28 (0.67)	1.88 (0.81)	2.68	100	P<0.009	0.59
27 Bullying classmates	1.98 (0.71)	1.67 (0.71)	2.18	100	P<0.031	0.44
28. Cheating	2.30 (1.20)	2.08 (1.01)	1.02	100	NS	0.18
29. Day-dreaming	2.92 (1.09)	2.87 (0.97)	0.27	100	NS	0.05
30. Disobeying teachers' instructions	2.14 (0.83)	1.94 (0.92)	-1.14	100	NS	0.24
31 Shouting or yelling in the class	1.90 (0.81)	1.60 (0.66)	2.07	100	P<0.041	0.37
32. Lateness	2.10 (0.68)	1.85 (0.75)	1.79	100	NS	0.37
33. Use of bad language	2.42 (1.16)	1.79 (0.91)	3.06	100	P<0.003	0.54

34. Being talkative in class	3.26 (1.01)	2.96 (1.17)	1.38	100	NS	0.30
35 Truancy	1.62 (0.67)	1.29 (0.50)	2.85	100	P<0.005	0.49
36 Reading/possession of obscene magazines, pictures	1.16 (0.37)	1.23 (0.51)	-0.80	100	NS	0.19
37 Unable to control emotions/impulses	1.90 (0.61)	1.85 (0.61)	0.45	100	NS	0.08
38. Showing no response to others	1.50 (0.58)	1.71 (0.78)	-1.56	100	NS	0.36
39. Incessantly asking questions and making noises.	2.16 (0.74)	1.98 (0.83)	1.15	100	NS	0.24
40. Failure to hand in assignments	3.26 (1.08)	3.15 (1.16)	0.48	100	NS	0.10
# The effect size is calculated by dividing the difference of the means between the practical and band 5 schools by the standard deviation of the practical school sample in each item.						

Conclusion

As predicted, the results from the analysis of the teachers' responses to the questionnaire showed that most teachers in practical and band 5 schools as a whole perceived their students adopting work avoidance and self-worth motivation, being learned helpless, and troublesome in class and of low ability. There were strong relationships between maladaptive motivational dimensions. Maladaptive motivational styles accounted for about 40 % of the total variance on the motivational variables. Students in band 5 schools, when compared with their counterparts in practical schools, inclined to adopt learned hopeless and work avoidance motivation. With reference to students' disruptive behaviours, both students in practical and band 5 schools exhibited minor discipline problems, for example, failing to hand in assignments, being talkative in class, day dreaming, cheating, using bad language, and falling asleep in class. There were no significant differences in behavioural pattern within each type of school. However, when

comparing disruptive behaviours between practical and band 5 schools, the results showed that students in practical schools showed more severe behavioural problems; they had significantly higher rate of behaviours such as sleeping in class, bullying classmates, shouting and yelling in class, using bad language and playing truant. In sum, students in practical and band 5 schools, as perceived by their own teachers, exhibited different motivational and behavioural patterns.

Chapter Seven

Discussion and Conclusion

Introduction

Students in practical schools are regarded as unmotivated towards school work. They lose interest in school learning and became frustrated in schooling; as a result, some may drop out or become delinquents. Under the education policy in Hong Kong, after seeking parental consent, school social workers may transfer target students from mainstream schools to practical schools (PS). Influenced by the number of dropouts reported to the Education Department in 1990, four practical schools were established in Hong Kong to cater for target students. To the knowledge of the author, no study in Hong Kong has previously examined the motivational styles of these so called 'unmotivated' students. The Board of Education in a report on special education has pointed out that 'the definition of "unmotivation" is vague..., it is necessary to ensure that these unmotivated students have a low inclination towards academic learning before referring them to PS' (Education Department, 1996, p. 155). The purpose of this research, therefore, was to investigate the motivational and behavioural patterns of students in practical schools.

As most students in band 5 schools are weak in academic performance and have a low motivation to study, they may exhibit similar motivational and behavioural patterns. A comparison of the motivational and behavioural patterns between students in practical and band 5 schools was considered worthwhile because students from both schools were generally of the same ability range. Hence, this research drew a sample of students from band 5 schools for comparison purpose. In addition, this research included

collecting data from teacher's perceptions of students' motivation and disruptive behaviour in practical and band 5 schools by means of questionnaire. The intent was to see whether teachers from practical and band 5 schools held different views on students' motivation and whether they used different teaching strategies to enhance students' motivation.

Discussion of Results

Concepts of Motivation for Learning

One of the procedures of this study was to design questionnaires to investigate students' motivation. Murphy and Alexander (2000) suggested that the conceptual vagueness in motivation terminology was inevitable and argued that 'psychology itself was a discipline marked by conceptual confusion' (p. 4); they compiled a corpus of 17 motivational terms under four categories: goal, interest, motivation and self-scheme. As 'unmotivated' was a vague concept, there were no objective tools in Hong Kong to investigate the students' motivational behaviour in practical schools. For this study, the author developed a measurement to examine students' motivation for learning and confirmed that it has high reliability. The evidence showed that constructs such as causal attribution for success and failure, learning and performance goals, self-efficacy, self-worth, learned helplessness, learned hopelessness, value of education, attitudes towards schooling, and affect are interrelated concepts, either in same or opposite directions; they correlate strongly with each other. Furthermore, this study has provided evidence showing that motivation is a concept which can be operationalised in a useful way. Students' motivational behaviour can be regarded as adaptive or maladaptive. Evidence from this study showed that sample students from both practical and band 5 schools exhibited some sort of maladaptive motivational style. Maladaptive

motivational styles accounted for about 25 % of the total variance of the motivational variables for the entire sample. Although some students in this study adopted task-oriented motivation, they were more likely to attribute their success to external factors. They had a belief that their success was controlled by external factors such as teachers explaining the schoolwork well and the ease of school tasks. Moreover, maladaptive motivation styles such as work avoidance, learned helplessness, learned hopelessness, lack of self-efficacy, self-worth motive, negative attitude towards schooling were the prominent characteristics of the sample students in practical and band 5 schools; these dimensions were interrelated with each other. Thus, it may be concluded that 'unmotivated' is not a vague concept and that students' motivation for learning could be measured by using students' and teachers' questionnaires developed for this study.

Motivation for Learning for Chinese Students

This study has shown that students' motivation for learning in Hong Kong was different from that of western countries; for example, task-orientation and ego-orientation are significantly correlated for students in practical and band 5 schools. This result is in line with studies conducted by Salili et al. (2001) that learning goals and performance goals were positively correlated with each other among Chinese students. It was also found that intrinsic values and extrinsic values for the purpose of education were significantly correlated in this study. The result may imply students in Hong Kong place similar importance both on intrinsic and on extrinsic values of education. This study found evidence similar to Lau et al. (1997) that Chinese students are more oriented to extrinsic goals of education such as wealth and status. It is not consistent with the alternative belief that Chinese students are more oriented towards intrinsic values. This study confirmed the claim that 'Chinese students display learning patterns that

differ from students in other cultures' (Hong & Salili, 2000). It seems that Chinese cultural values that attribute success to effort and the belief that academic success brings pride for the whole family have an impact on students' motivation for learning in Hong Kong. This study found evidence that Chinese culture, that endorses a positive relationship between effort and ability, could exert a negative effect on students' motivation for learning in practical and band 5 schools. Students in practical and band 5 schools had low confidence in their ability and believed that their effort spent would not bring results; as a result, they were more likely to attribute their failures to internal factors of lacking ability and effort in study. In sum, Chinese culture may exert a negative impact on students' motivation for learning in practical and band 5 schools.

Differences in Students' Motivation for Learning between Practical Schools and Band 5 Schools

Based on the evidence from students' and teachers' responses to questionnaires, this study showed that there were marked differences between practical and band 5 schools in students' self-perception of motivation for learning and teachers' perceptions of students' motivation and disruptive behaviours.

The data showed that students in practical schools exhibit a cluster of maladaptive motivational behaviours. About one-third of the total variance was accounted for by maladaptive patterns such as learned hopelessness, lack of self-efficacy, self-worth, attribution of failure to internal and external factors, negative emotion towards schoolwork, and learned helplessness. When compared with their counterparts in band 5 schools, students in practical schools were more likely to attribute their failure to external factors such as difficult schoolwork. Students in practical schools seemed to adopt a learned helpless motivation. They had a perception that

they were unable to tackle school tasks due to low ability, and they were nervous when taking school examinations. They felt ashamed because they could not do well in school tasks. It seemed that students in practical schools had adopted stable and uncontrollable attributions. On the other hand, students in band 5 schools tended to have a self-worth motive and work avoidance orientation. They tended to leave their schoolwork to the last moment. They were more concerned about competition with their peers and schoolmates. Thus Hypothesis I that students' motivation in practical schools is significantly different from their counterparts in band 5 schools is supported from the evidence of this study.

Students' Motivation for Learning in Practical Schools

The evidence from this study showed that students in practical schools tended to attribute their failure to stable and uncontrollable dimensions related to locus of control, i.e. lack of ability and difficult school tasks. They appeared to have a belief that they could not control their lives. Their perception of lost control may have had adverse effects on their motivation for learning. Their repeated experiences of failure and their rejection by mainstream schools may have made them develop a more negative image towards themselves and led them to attribute their failure to internal factors beyond their own control; such as low ability, and to external factors such as difficult school tasks. These students had characteristics of the learned helpless motivational style.

Their self-perception of incompetence might further trigger strong feelings of shame. When shame is elicited as result of failure that is not under volitional control, it is likely to produce a desire to withdraw. This study showed a causal link between feelings of shame and ability attributions for students in practical schools, which supported Weiner's (1992) argument that 'shame is produced when failure is ascribed to lack of ability' (p. 277).

This result was also in line with the argument reported by Weiner (1992) that 'shame causes one to lose control, to feel powerless and externally controlled. There is a general picture of helplessness in the shame situation' (p. 276). As students in practical schools had a perception that they could not control the outcome, they might become nervous and anxious when taking school tests and examinations. It may be argued that their anxiety towards school tasks may progressively decrease over time and subsequently be replaced with an increasing feeling of helplessness or even hopelessness.

Moreover, this study obtained similar evidence consistent with that of Dweck and her colleagues (Diener & Dweck, 1978; Dweck, 1986) that 'learned helpless' students attribute failure to lack of ability, employing ineffective strategies in learning, exhibiting negative feelings, expecting to do poorly in school tasks. They become failure acceptors. The results of this study were also consistent with Peterson et al.'s (1993) argument that students who adopt a learned helpless motivation will react with inappropriate passivity and perceive the events of their lives as uncontrollable.

The evidence showed that students in practical schools were more likely to have an expectation that aversive outcomes would occur that were out of their control. They believed that they could do nothing about their lack of academic success because of low ability. Hence, they might develop a feeling of total loss of personal control of events. This could even lead them to develop a learned hopeless pattern of motivation, a combination of stable, global and internal attributions. It seemed clear that there were sufficient causes leading to the development of learned hopelessness. Their failure experiences may have been sufficient for them to develop maladaptive cognitive beliefs (e.g. in their low ability), emotional reactions (e.g. shame) and motivational responses (e.g. learned helpless). Thus this

study obtained evidence supporting Hypothesis II that if students in practical schools adopt a maladaptive motivation style to learning, they will be inclined to acquire a learned helpless and even learned hopeless motivational style towards school learning.

Students' Motivation for Learning in Band 5 schools

Most students in band 5 schools are regarded as academically low achievers. They are unable to cope with the existing curriculum and have a weak academic foundation with a low motivation to study. The Working Group on Support Services for Schools with Band 5 Students pointed out that these students 'tend to have a low self-image of themselves owing to low academic attainment. They lack study habits and tend to be passive' (Education Department, 1993, p.5). The evidence from this study showed that students in band 5 schools adopted a number of maladaptive motivational patterns similar to their counterparts in practical schools, for example, holding negative attitudes towards schooling, work avoidance, lack of self-efficacy, attributing failure to external factors, adopting learned helpless and learned hopeless. However, when compared with their counterparts in practical schools, students in band 5 schools were more likely to adopt a self-worth motive; for example, they were more likely to leave their homework to the last minute and thus give themselves an 'excuse' for poor performance which did not imply low ability. Furthermore, they tended to attribute their success to external factors such as the ease of the task and had a perception that school should teach them to compete with others. Moreover, they wished to get out of schoolwork as soon as possible. As a result, there was a decrease in achievement strivings among students in band 5 schools. The evidence from this study showed that students in band 5 schools adopted a different type of maladaptive motivation. In these schools the self-worth motive and work avoidance

were more in evidence among students.

This study found evidence that students in band 5 schools were more likely to attribute their failure to internally controlled factors such as not being interested in schoolwork, not making serious effort in study, and not studying the right thing. They tended to adopt self-handicapping strategies, such as avoidance of schoolwork. All of these served to protect their sense of self-worth against failure by giving reasons other then ability for their poor performance. Some may even have viewed peer acceptance as more important than academic achievement and they rejected academic values. The evidence from this study also showed that teachers in band 5 schools perceived their students as more likely to adopt learned hopeless motivation and work-avoidance attitudes. The evidence of this study matched Pang's (1999) study that students in band 5 schools did not envisage the possibility of academic success and that their general satisfaction with schooling was negatively correlated with negative affect such as feeling helpless, upset, worried, etc. The evidence of this study is clearly consistent with Covington's (1992, 1996) self-worth theory that students who adopt the self-worth motive try to defend a positive self-image by employing the failure avoidance strategies of simply not trying and exerting little or no effort. Thus, lack of persistence and self-regulation is the classical solution. As a result, their academic results are likely to further deteriorate and some may commit disruptive behaviour. Martin et al. (2001) offer a useful description of students' motivational performance in band 5 schools: 'the negative impact of self-handicapping is quite comprehensive, influencing both behavioural and cognitive engagement, as well as actual performance' (p.98).

Family Backgrounds and Students' Motivation for Learning

A large amount of evidence in other countries has shown that family

socio-economic variables, such as parents' occupation, parents' education level, housing index and family size are significantly related to students' academic performance (Plowden Report, 1967; Fotheringham & Creal, 1980). Studies have also shown that family socio-psychological variables, such as parental educational aspirations for their child, parents' interest and support, and the literacy and intellectual level of home, have a significant impact on students' academic performance (Marjoribands, 1997; Feldman and Wentzal, 1990; Witcockson, 1995). Gottfried et al. (1994) have provided evidence that children's intrinsic motivation for academic tasks is socialised by parents. Parental affective patterns have their effect on children's motivational attributions, self-concept and cognitive process (Gronlnick et. al. 1991). Green (1995) opined that parental styles explaining failure might contribute to a child's learned helplessness, diminished sense of efficacy, lack of effort and eventual failure (p.221).

The evidence from this study supported the above claims that socio-psychological factors in the family were related to students' motivation. It was shown that parental support was significantly related to measures such as success attribution, task-orientation, ego-oriented motives and extrinsic and intrinsic values regarding the purpose of education. Parental support was also significantly related to positive attitudes towards schooling. The evidence from this study also showed that parental occupation and educational level had an impact on students' attitude towards schooling. Students who had parents of lower socio-economic status held a more negative attitude towards schooling. In comparison with their counterparts in band 5 schools, students in practical schools had parents with higher educational levels. However, it was evident that there was a lack of parent-child communication for students in practical schools. It may be argued that parents of practical school students tended to have a higher expectation towards their children and valued

education more highly. As a result, they might make high demands of their children, which might lead to negative parent-child relationship. It was also found that parental occupation was significantly related to students' negative attitude towards schooling in practical schools. Chinese culture believes in a positive relationship between effort and ability. This may have a mediating effect on parents' views that their children's poor performance was due to lack of effort. Hence, family socio-economic backgrounds might have more impact on students' motivation in practical schools. From their past failure experience, students in practical schools found that their effort spent did not pay off and believed that their poor performance was due to their lack of ability. Thus their beliefs could result in more negative effects on their motivation for learning. Thus Hypothesis III, that students' motivation in practical schools is related to socio-psychological factors in their family, receives some support from the evidence of this study.

Teachers' Perceptions of Students' Motivational and Behavioural Patterns

The evidence from this study showed that maladaptive motivational styles accounted for about 40 % of the total variance of teachers' perception of students' motivation, which could be grouped under the components of lack of self-efficacy, learned helplessness, work avoidance, learned hopelessness and 'difficult to motivate'. When comparing teachers' perceptions of students' motivation for learning between practical and band 5 schools, teachers in band 5 schools were more likely to find their students adopting learned hopeless and work-avoidance motivation. They perceived their students as unwilling to seek help and preferring schoolwork that could be done with little effort. Although teachers in practical schools claim to use more positive approaches in teaching their

students, the evidence from this study showed that there were no significant differences in teaching strategies reported by teachers in practical and band 5 schools.

According to a study on students' classroom disruptive behaviours conducted in Hong Kong, six frequent problems of disruptive classroom behaviours reported by teachers were: (1) failing to hand in assignments, (2) sleeping in class, (3) forgetful in bringing textbooks and stationery, (4) making noise in the class, (5) copying another pupil's assignment, and (6) shouting or yelling in the class (Education Convergence, 1998). Students' disruptive behaviour, as reported by teachers in this study, displayed a similar pattern. The six most frequent disruptive behaviours as perceived by teachers were: (1) failing to hand in assignments, (2) being talkative in class, (3) day dreaming, (4) cheating, (5) using bad language, (6) sleeping in class. The behavioural problems could be summarised as disruptive behaviour, deviant behaviour, communicative problems, and emotional behaviour. Compared with their counterparts in band 5 schools, students in practical schools were perceived by teachers to display more disruptive behaviour in school. They had a higher rate of sleeping in class, bullying classmates, shouting or yelling in the class, use of bad language, and playing truant.

The evidence from this study showed students in practical schools presented more severe behavioural problems. Students in practical schools exhibited the behavioural patterns similar to low attaining and unmotivated students: behavioural, emotional, motivational or a combination of these. It may be argued that there were problems in the referral and placement mechanism adopted by the Education Department in Hong Kong. Under the existing referral procedures, students who were labelled as 'unmotivated' may not necessarily have had motivational problems. Instead, they may have had serious behavioural problems. This study

supported the views reported by the Board of Education that some students with severe behavioural problems have been admitted into practical schools (Education Department, 1996, p.156). It seemed that practical schools admit a wide spectrum of students; they admit students who are either underachievers, unmotivated, or exhibiting behavioural problems. There is evidence that students in practical schools may have complex motivational and behavioural problems.

Although teachers in practical schools perceived their students as exhibiting a higher rate of disruptive behaviour, they did not believe that their students had as serious motivational problems as expected. Based on teachers' responses to the questionnaire, it was found that teachers in practical schools were more likely to adopt positive teaching strategies than their counterparts in band 5 schools. In spite of the students' low motivation, it seemed that teachers in practical schools did try to motivate students to learn. On the other hand, teachers in the band 5 schools perceived their students as having more problems in their motivation for learning. In this regard, Hypothesis IV that teachers in practical schools would hold a more positive perception of their students' motivation for learning had support from this study.

The Effectiveness of Practical Schools

It is not clear that children with difficulties actually benefit from placement in special schools or special classes (Galloway and Goodwin, 1987, p.174). Practical schools aim to provide an alternative education that places less emphasis on academic subjects and focuses more on practical skills. One might argue that they were ' a non-integrating approach to the development of special education services in Hong Kong' and they were ' definitely contradictory to the philosophy of integration' (Yung, 1998, p.57). Thus the existence of practical schools and their effectiveness in helping

unmotivated students needed to be supported by sound reasons. In order to verify whether the skills-oriented curriculum offered in practical schools is beneficial to students, a pilot study conducted by the Education Department in early 1990s showed that practical schools could help students regain their interest in study and prevent them from becoming dropouts or even delinquents (Education Department, 1994). However, the present study found evidence of the reverse.

This study showed that older students who enrolled in S.2 in practical schools felt a lack of self-efficacy towards schoolwork. It also showed that S.1 students were likely to develop a more negative attitude towards schooling after a six-month interval. On the other hand, S.1 students in band 5 schools were likely to develop a more positive learning motivation by the end of the school year; they became significantly more likely to attribute their success to external factors, and there was a decrease in learned helpless motivation. Furthermore, there was a reduction in their self-worth motivation and negative attitudes towards schools but a significant increase on the scale of task-orientation for S. 2 students. There was a significant improvement in students' motivation for learning in band 5 schools. Although teachers in practical schools are believed to hold positive attitudes towards their students and adopt supportive programmes for students, there was no positive change in students' attitude towards schooling. However, students in band 5 schools, in spite of their underachievement, did show significantly positive change in their motivation over the first two school terms; they increasingly made attributions of their success to external factors and showed improvement in positive attitudes towards schooling. It seemed that band 5 schools, compared with practical schools, were more effective in enhancing students' motivation.

It may be argued that the provision of additional resources and the offer of

an alternative curriculum in practical schools are not effective in promoting students' motivation. On the other hand, although students in band 5 schools did not believe in their capability for academic success, they might develop a better self- image if they found the learning enjoyable for its own sake and experienced greater satisfaction at school. This study supported Pang's (1999) view that improving teacher-student relations, strengthening social integration and improving adventurous experience in the classroom would be effective strategies in improving students' motivation in band 5 schools. It may be argued that under a more supportive environment, students in band 5 schools experienced less negative labelling, and thus their motivation for learning could be enhanced. However, the provision of additional opportunity and the belief in the relevance of schooling for the target students in practical schools had no positive effect on students' general satisfaction in schooling and did not appear to reduce their negative attitudes towards schooling. Although there is an assumption that teachers in practical schools could enhance students' motivation for learning, the evidence from this study showed that practical schools, compared with band 5 schools, did not appear to significantly improve students' motivation. Thus the Hypothesis V that practical schools could help students enhance their motivation towards learning was not supported from the evidence of this study.

Implications for Education

Education Policy

The purpose of setting up practical schools was to provide an alternative educational opportunity for those students who showed little or no interest in schooling. However, from the start of provision of such schools, it was found that they were not well received by parents. The Board of Education

on the review of special education opined that practical schools had low enrolment and attendance rate (Education Department, 1996). It seemed that practical schools might result in negative labelling of students and that parents did not like their children to be placed in schools that were specified for those who lacked motivation for learning. This study found that students in practical schools tended to show evidence of learned helpless motivational style or even learned hopelessness. Although teachers in practical schools were expected to develop educational and guidance programmes in motivating students to learn, students did not show positive changes in their motivation for learning. Together with the low intake rate of practical schools, the present study provided no evidence that the placement of 'unmotivated' students in practical schools was an effective way to help them. Grouping of learned helpless students in a special school setting is not necessarily an effective way to enhance students' motivation for learning.

Without an in-depth study of effective ways to help students who lacked motivation to learn and based on a vague conceptual framework of 'unmotivation', the Hong Kong Government made a hasty decision to open practical schools. It can be argued that the provision of a special purpose school for 'unmotivated' students, such as practical schools, was a shortsighted measure. In view of the fact that the provision of practical schools is inconsistent with the trend towards inclusive education, the government announced that the four practical schools would be converted into mainstream schools by September 2002 (Education Department, 2001). The findings of this study, together with the fact of low enrolment rate of practical schools, imply that we have to look for another way to help students not to develop learned helpless motivation.

School Environment

In promoting quality education, enhancing students' motivation to learn is one of the major tasks of school personnel. Maehr and Midgley's (1991) claim that 'motivation is recognised as a critical need for a society that clearly worried about its future' (p.400) remains valid. Many studies have been concerned about changing the motivation of individual students (DeCharms, 1976; Craske, 1988). There have been a number of studies showing that application of motivation and research to the school level is more effective and desirable than a programme targeted at individual students (Ames, 1992; Epstein, 1994). There is a growing demand to rethink and reform education, especially inside the school environment. The evidence from this study showed that there were marked differences between individual schools in students' and teachers' responses to the motivational survey and that band 5 schools as a whole had a positive effect on students' motivation for learning. To enhance students' motivation for learning, it seems that we need a school-wide approach. If we believe that teachers can have an impact on students' motivation for learning, we may wish to explore school environments that link students' academic and social development. An effective school environment would mobilise students' intellectual capacity to create and transfer knowledge and their social capacity to generate trust and sustain networks to achieve the desired outcomes of intellectual and moral excellence through the successful use of high leverage strategies that are workable and innovatively practicable (Hargreaves, 2001, p.490).

Ashton and Webb (1986) advocated an ecological approach to boost students' motivation by transformation of the school environments starting from changing the microsystem throughout the mesosystem, exosystem, and macrosystem. They argued that when teachers were motivated to teach, their students would be more motivated to learn (p. 95). The school as a

whole, including the senior management team and individual teachers, needs to be committed to create a school environment that aims at enhancing student motivation and learning.

Teaching Strategies

Alderman (1999) has argued, 'teachers have a primary responsibility in education to help students cultivate personal qualities of motivation' (p.3). Motivation and affect for learning derive from many components and result from many factors. These factors include things such as goal setting, self-efficacy, outcome attribution, interest, valuing, and self-worth perception. This study showed that students in practical schools and band 5 schools might use either self-handicapping strategies by withdrawing effort for learning or adopting negative attitudes towards schooling. They might either set low expectations or have low cognitive engagement. Hence, to motivate students to learn, we may have to change their motivational beliefs and strategies for learning.

Craske (1988) showed that attribution retraining could be effective for learned helpless students of primary school age. Students gained higher rating for effort and lower ratings on ability measures after retraining. However, students who were identified as adopting the self-worth motive did not show any changes after retraining. We may argue that attribution retraining could be effective for students who showed a learned helpless motivation in practical schools as these students tended to believe that their failure was due to low ability. However, the results from this study showed the reverse. Practical schools had no positive effect on their learned helpless students' motivation for learning. However, students in band 5 schools who were more likely to adopt the self-worth motive showed positive change in their motivation for learning. This may imply that students in band 5 schools who have similar ability to their counterparts in

practical schools but may have experienced less labelling were able to show a positive change in their motivation for learning. We may argue that band 5 schools, to a certain extent, have changed the school environment from an ability game to an equity game to avoid a negative effect on the self-worth motive. In view of the homogeneous ability of students, teachers in band 5 schools, to a certain extent, may have developed an equity environment in enhancing students' motivation as advocated by Covington and Teel (1996), components of which include insuring equal access to rewards, praising mastery and curiosity, rewarding multiple abilities, offering alternative incentives and making assignments engaging.

Schunk and Zimmerman (1994) argued that intervention focused on enhancing students' ability perceptions by modifying attributions, by training learning strategies, or by helping students to set challenging but achievable goals are likely to have a limited impact unless teachers create a classroom that supports a mastery orientation towards learning (p.39). They advocate the development of students' self-regulatory capabilities. Self-regulatory refers to the degree that individuals are metacognitively, motivationally, and behaviourally active in participating in their own learning process (Schunk and Zimmerman, 1994, p.3). To help students develop self-regulations, teachers may run interventions including goal-setting, help-seeking, self-evaluation, volitional control, time management, metacognitive strategies, etc. Zimmerman et al. (1996) suggested the practice of teachers in traditional classes will not develop self-regulated students and that 'teachers can shift responsibility for the learning process by helping students develop self-regulatory skill' (p.16).

In conclusion, to motivate students to learn, teachers have to change their mindset and create a positive learning environment for students. At the same time, teachers have to help students to employ different strategies in learning.

Implications for Future Research

This study has provided new information regarding the motivation for learning of students at the bottom end of the achievement and motivation spectrum in schools in Hong Kong. By collecting data from students' and teachers' responses to motivational questionnaires, this study has given insight into students' motivation for learning, especially those "unmotivated" and low achieving students in practical and band 5 schools respectively. It was found that motivation was a complex concept, which included causal attributions, goal setting, self-efficacy, value of education, motivational styles, etc. Students in practical schools showed evidence of maladaptive motivational styles such as learned helplessness or even learned hopelessness. Although these students had been placed in a special purpose school with a modified curriculum and additional resources, their maladaptive motivation remained unchanged. Although teachers in these schools were attempting to adopt a more practically oriented curriculum, organising more extra-curricular activities and guidance programmes, there was no positive change in students' attitudes towards schooling. In spite of smaller class-size and increased teaching and guidance personnel, the outcome of students' motivation for learning was not encouraging. The evidence in this study showed that the provision of practical schools for unmotivated students is not obviously an effective way of changing students' motivation for learning. On the other hand, students in band 5 schools, placed in a less segregated setting, did show some positive changes in their motivation for learning. Thus, further research should study the possible ways to improve students' motivation for learning in mainstream settings and to find feasible and effective strategies to help students change their maladaptive motivational styles, especially those who adopt learned helpless and self-worth motivation.

Qualitative research methods such as ethnographic studies or interviews may provide more information about the motivational behaviour of target students and the interaction between students and teachers.

Limitations of this Study

This is the first research in Hong Kong to investigate students' motivation for learning in practical schools and has provided insight into students' motivation for learning in such a special setting. Knowledge derived from this study provides useful information on the motivational performance of supposedly 'unmotivated' students and provides some indications for improving students' motivation. However, limitations are bound to exist in this study. First, the evidence of this study is mostly based on quantitative research methods of students' and teachers' responses in the survey. No data on interactions between students and teachers in the sample schools could be collected due to time constraints. To examine variables related to motivational behaviour inside the classroom and within school, future research should attempt to collect data based on qualitative research methods such as ethnography, interview, etc. Second, the sample for this study was drawn from a small number of students from two practical schools and two band 5 schools. The students were neither randomly selected nor based on a large sample size. Interpretation of results based on a small sample should be cautious. Third, although the data were analysed with correlation measures and inferential statistical techniques, no causation can be inferred from the findings. To draw generalization from the evidence of this study may entail a risk of error. More sophisticated analysis techniques might be used in future research to identify causal links in motivational behaviour.

Conclusion

Despite the limitations mentioned above, the results of the present study have significant implications for teachers and researchers in examining students' motivation for learning. This study showed that motivation is a multi-faceted concept. The conceptual framework of motivational style derived from this study might help to explain the underlying differences between effective and ineffective schools. To enhance students' motivation for learning, there is no short cut; a multi-systematic approach including family, school and community efforts should be adopted. Teachers and parents should work together to create and sustain a positive motivational climate for learning. Teachers can help students develop positive learning motivation. Schools should prepare students for a challenging twenty-first century. Students who value school, who view learning as an end in itself and believe that the purpose of education is to master ideas and seek personal challenge, will become fully functioning and caring individuals capable of pursuing new hopes and aspirations in the new century.

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Appendix I

A Summary of Characteristics of Practical Schools

Purpose of Setting Up Practical Schools

1. The Education Commission Report No.4 recommended the setting up of practical schools to cater for the group of junior secondary students who have low motivation towards the common-core curriculum of grammar, prevocational or technical secondary schools. The provision of an alternative curriculum which aims at accommodating students' interest in practical subjects may avert their tendency to drop out from mainstream schools, and retain them within the education system. Practical schools provide this group of students with an equal opportunity for proper schooling through a curriculum of practical subjects so as to prepare them, on completion of Secondary Three, for senior secondary education in ordinary schools, or vocational training, or open employment.

The Target Students

2. The students should be those who are anticipated to have difficulties in coping with the learning environment of grammar, prevocational or technical secondary schools because of their lack of interest in the curriculum of these schools, or those who show more interest to pursue a practically oriented curriculum.

The Curriculum

3. The Curriculum Development Institute of the Education Department has drawn up a curriculum framework for practical schools. The curriculum places more emphasis on practical experience than academic knowledge and aims at arousing students' interest and developing a positive attitude to learning. The curriculum comprises about 55% academic subjects that are largely the same as those taught in ordinary secondary schools and about 45% cultural, technical/practical subjects. Examples of the technical /practical subjects are Computer Literacy (including Chinese and English word processing and computer graphics),

Accommodation and Catering Service, Fashion and Clothing, Office Practice, Hairstyling, Metalwork, commercial Studies, Seamanship, etc.

4. Extra learning programmes known as complementary studies are organized outside school hours for students. These are short skills courses which supplement the formal curriculum and aim at developing students' potential in order to prepare them for vocational training when they leave school.

Post Secondary 3 Placement

5. The curriculum of practical schools provides training of a practical nature. On completion of Secondary 3, students with a vocation inclination can apply for admission to craft courses provided by Technical Institutues (TIs). Those who are more academically inclined can continue their senior secondary education in ordinary school/institutes. The existing Junior Secondary Education Assessment Scheme offers Secondary 3 students of practical schools equal opportunity for post Secondary 3 alternatives. Some Secondary 3 leavers can receive training in industrial training centres (ITCs) while others can enter into employment.

Supporting Service within the School

6. Practical schools are provided with school social workers at the provision ratio of 1 worker per 150 students. These school social workers are staff of the school and directly appointed by the school management committee. Their major duties include:
   (a) Pre-admission interview of students and their parents;
   (b) Admission and orientation programme for newly admitted students;
   (c) Counselling and guidance services of enrolled students;
   (d) Home-school liaison and co-operation; and
   (e) Post Secondary 3 placement for Secondary 3 students.

7. Regular consultation services will also be provided to schools by visiting Educational Psychologists of the Education Department.

Special Physical Facilities

8. The practical and diversified curriculum requires a different schedule of accommodation. There are 15 classrooms for the full capacity of 15 classes, and hence no floating class is required. Each school has a number of workshops/special rooms to provide the necessary facilities for technical/practical subjects and out-of-class activities. A resource room and a remedial teaching room are available for complementary studies and remedial teaching purpose respectively. There are also offices for school social workers to conduct interviews and counselling.

Class Structure and Class Size

9. Practical schools operate on a whole-day basis with a class structure of 5-5-5 for Secondary 1 to Secondary 3. Each class accommodates 30 students and each school provides 450 places.

Boarding Facilities

10. Boarding facilities will be provided for those students whose home environment is not conducive to learning. Subject to places being available, such services will be arranged upon the recommendations of the Educational Psychologists from the Education Department.

Appendix II

Questionnaire on Students' Motivation for Learning (English Version)

Before completing the questionnaire, please fill in the following information:

Name : _____

Class : _____

Sex: _____ Date of Birth: _____

Father's Occupation: _____

Mother's Occupation: _____

Residential Type (Please put one tick in the appropriate box):

Public Housing: ☐
Private Housing (Whole Flat) ☐
Private Housing (Part of a Flat) ☐
Other : _____

Siblings (Please put the number of brothers and sisters you have)

Elder Brother(s) _____
Younger Brother(s) _____
Elder Sister(s) _____
Younger Sister(s) _____

Father's Educational Level (Please put one tick in the appropriate box)

Primary Level ☐
Secondary Level ☐
University Level ☐

Mother's Educational Level (Please put one tick in the appropriate box)

Primary Level ☐
Secondary Level ☐
University Level ☐

Introduction:

These questions will help us understand how you feel about yourself, your school, your family and your schoolwork.

Please try to answer each question as honestly as you can. There is no right answer.

Please read each question carefully and put one tick in the box which best reflects your views and feelings in the following 5-point scale:

I strongly agree
I agree
I am not sure
I disagree
I strongly disagree

	I strongly agree	I agree	I am not sure	I disagree	I strongly disagree
1. When I do well in school, it is because the teacher explains things well.	☐	☐	☐	☐	☐
2. I try hard to make sure that I am good at my schoolwork.	☐	☐	☐	☐	☐
3. I feel really pleased in school if I don't have to work hard.	☐	☐	☐	☐	☐
4. When I do poorly in school, it is because I am not smart.	☐	☐	☐	☐	☐
5. I like to be encouraged by others for my schoolwork.	☐	☐	☐	☐	☐
6. When I do poorly in school, it is because the teachers do not explain things well.	☐	☐	☐	☐	☐
7. I feel hopeless in my schoolwork.	☐	☐	☐	☐	☐
8. When I do well in school, it is because the schoolwork is easy to understand.	☐	☐	☐	☐	☐
9. School should help us keep working in spite of obstacles.	☐	☐	☐	☐	☐
10. I fail in school subjects because I am lazy.	☐	☐	☐	☐	☐
11. My parents often help me to complete the homework.	☐	☐	☐	☐	☐

12. When I do well in school, it is due to my good luck.	☐	☐	☐	☐	☐
	I strongly agree	I agree	I am not sure	I disagree	I strongly disagree
13. When I do poorly in school, it is because the school work is hard.	☐	☐	☐	☐	☐
14. Even if I tried harder, I would still not succeed in doing well on some school subjects.	☐	☐	☐	☐	☐
15. I always leave my homework to the last minute.	☐	☐	☐	☐	☐
16. When I do poorly in school subjects, it is because I am not interested in them.	☐	☐	☐	☐	☐
17. I feel confident in my schoolwork.	☐	☐	☐	☐	☐
18. When I am in this school, I usually feel frustrated.	☐	☐	☐	☐	☐
19. I feel joyful attending this school.	☐	☐	☐	☐	☐
20. When I do well in school, it is because of my own effort.	☐	☐	☐	☐	☐
21. I am worried about not doing well in my schoolwork.	☐	☐	☐	☐	☐
22. I am always trying to do better in my schoolwork.	☐	☐	☐	☐	☐
23. When I do poorly in school, it is because teachers are biased against me.	☐	☐	☐	☐	☐
24. I enjoy trying to find the answer to a difficult problem.	☐	☐	☐	☐	☐

	I strongly agree	I agree	I am not sure	I disagree	I strongly disagree
25. School should prepare us to get a better job.	☐	☐	☐	☐	☐
26. I feel really pleased if the teacher doesn't ask me any hard questions.	☐	☐	☐	☐	☐
27. I try hard at school because I am interested in my schoolwork.	☐	☐	☐	☐	☐
28. I feel nervous when I take the school examinations.	☐	☐	☐	☐	☐
29. School should teach us to compete with others.	☐	☐	☐	☐	☐
30. I fail in school subjects because I do not make a serious attempt in schoolwork.	☐	☐	☐	☐	☐
31. I feel really pleased if I don't have to do any homework.	☐	☐	☐	☐	☐
32. There is no point in working hard at school because it makes no difference in getting a good result.	☐	☐	☐	☐	☐
33. I have a guilty feeling because I cannot do well in schoolwork.	☐	☐	☐	☐	☐
34. School should teach us to respect our parents.	☐	☐	☐	☐	☐
35. My parents always encourage me to participate in school extra-curricular activities.	☐	☐	☐	☐	☐
36. I find it difficult to keep my mind on schoolwork.	☐	☐	☐	☐	☐

	I strongly agree	I agree	I am not sure	I disagree	I strongly disagree
37. I like to try to figure out how to do school assignments on my own.	☐	☐	☐	☐	☐
38. I feel really pleased if all the schoolwork is easy.	☐	☐	☐	☐	☐
39. I try to do well at school to please my teachers.	☐	☐	☐	☐	☐
40. School should prepare us to be useful to society.	☐	☐	☐	☐	☐
41. I generally find lessons rather dull.	☐	☐	☐	☐	☐
42. It is important to me to do things better than my classmates.	☐	☐	☐	☐	☐
43. School should teach us to judge clearly about right and wrong.	☐	☐	☐	☐	☐
44. I work hard at school to bring honour to my parents.	☐	☐	☐	☐	☐
45. My school results make me feel inferior.	☐	☐	☐	☐	☐
46. My parents often praise me for my good academic results.	☐	☐	☐	☐	☐
47. I feel ashamed because I cannot do well in schoolwork.	☐	☐	☐	☐	☐
48. I never experience any academic success and there is no reason to believe I will get the breaks in the future.	☐	☐	☐	☐	☐

	I strongly agree	I agree	I am not sure	I disagree	I strongly disagree
49. In school academic subjects, there is not much I can do to improve my performance.	☐	☐	☐	☐	☐
50. My parents expect me to complete secondary schooling.	☐	☐	☐	☐	☐
51. I could do better in my schoolwork but I am not prepared to try harder.	☐	☐	☐	☐	☐
52. I feel really pleased if I don't have any tough tests.	☐	☐	☐	☐	☐
53. School should help us understand new technology and how it works.	☐	☐	☐	☐	☐
54. I am successful in schoolwork because I am smart .	☐	☐	☐	☐	☐
55. Unfortunate events happen to me that I cannot control.	☐	☐	☐	☐	☐
56. My parents always tell me that I must do well at school if I am to succeed in later life.	☐	☐	☐	☐	☐
57. I can concentrate for the whole class period.	☐	☐	☐	☐	☐
58. Most of the bad events that have happened to me have been a result of my bad luck.	☐	☐	☐	☐	☐
59. My school life is full of things that keep me interested.	☐	☐	☐	☐	☐

	I strongly agree	I agree	I am not sure	I disagree	I strongly disagree
60. I think there is not much I can do to change things in my life.	☐	☐	☐	☐	☐
61. My parents often discuss with me the importance of having a schedule for doing homework.	☐	☐	☐	☐	☐
62. I get low grades in school examinations because I do not study the right thing.	☐	☐	☐	☐	☐
63. I cannot cope with learning in most school subjects.	☐	☐	☐	☐	☐
64. My schoolwork seems to be so full of difficulties that I think I have to give up.	☐	☐	☐	☐	☐
65. I feel really pleased if I score higher than other students.	☐	☐	☐	☐	☐
66. I like hard work because it is a challenge to me. .	☐	☐	☐	☐	☐
67. I find it difficult to organise my study time effectively.	☐	☐	☐	☐	☐
68. I wish to get out of schoolwork as soon as possible.	☐	☐	☐	☐	☐
69. School should prepare us to earn more money.	☐	☐	☐	☐	☐
70. When I do well in school subjects, I feel much pride.	☐	☐	☐	☐	☐

End of This Questionnaire

Questionnaire on Students' Motivation for Learning (Chinese Version)

學生問卷

本問卷的目的是想了解你對學業成績及學校生活的一些看法和感受。我們會將你的回應保密，不會公開與其他有關人士閱讀。請仔細閱讀以下每一個句子，然後決定句子所描述的情境，符合你的行爲和感受的程度。請按照你同意或不同意的程度在適當的空格內用「✓」號 表示，多謝合作。

未填寫問卷前，請你先填寫以下資料:

姓名：_____

班別：_____

性別：：_____

出生日期：_____

父親職業：_____

母親職業：_____

住所類型：(請用 ✓ 表示)

公共屋 ☐

私人樓宇全層 ☐

私人樓宇部份房間 ☐

其他(請說明)：_____

家庭人數：兄____人 弟____人 姊____人 妹____人
(請填上人數)

父親教育程度：小學及以下___中學程度___大學程度____
(請用 ✓ 表示)

母親教育程度：小學及以下___中學程度___大學程度____
(請用 ✓ 表示)

		非常同意	同意	不肯定	不同意	非常不同意
1.	我在校內成績好，是因爲老師講解清楚。					
2.	我盡量努力，是想令自己的學業成績好。					
3.	如果無須在學校努力學習，我就會十分高興。					
4	我在校內成績差，是因爲我不夠聰明。					
5.	我喜歡自己的學業表現得到別人的鼓勵。					
6.	我在校內成績差，是因爲老師的講解不夠清楚。					
7.	我對自己的學業表現感到心灰意冷。					
8.	我在校內成績好，是因爲學校的功課容易理解。					
9.	學校應幫助我們克服困難，不斷努力。					
10.	學科成績不及格，是因爲我懶惰。					
11.	父母經常幫助我完成學校的功課。					
12.	我在校內成績好，是因爲我幸運。					
13.	我在校內成績差，是因爲學校的功課艱深。					
14.	雖然我已經盡力而爲，但仍然未能改善某些學科的成績。					
15	我經常到最後一刻才做功課。					
16.	我的學科成績差，是因爲我對這些科目不感興趣。					

		非常同意	同意	不肯定	不同意	非常不同意
17.	我對自己的學業表現很有信心。					
18.	在這所學校讀書，我常常有挫敗感。					
19.	在這所學校讀書，我感到很快樂。					
20.	我在校內成績好，是我努力的成果。					
21.	我擔心自己在學業方面表現不好。					
22.	我經常嘗試把學校的功課做得更好。					
23.	我在校內成績差，是因爲老師對我有偏見。					
24.	我樂於爲困難的問題找答案。					
25.	我們在學校讀書是爲了日後能找到理想工作。					
26.	如果不用回答老師的艱深問題，我就會十分高興。					
27.	我在學校盡量努力學習，是因爲我對學校的功課很感興趣。					
28.	考試的時候，我覺得很緊張。					
29..	學校應教導我們，以便日後能與別人爭一日之長短。					
30.	學科成績不及格，是因爲我沒有認真嘗試做好功課。					
31.	如果不用做任何功課，我就會十分高興。					
32.	在學校努力是沒用的，因爲取得好成績也不外如是。					

		非常同意	同意	不肯定	不同意	非常不同意
33.	我由於未能在學業方面表現好，感到十分內疚。					
34.	學校應教導我們尊敬父母。					
35.	父母時常鼓勵我參加學校的課外活動。					
36.	我發覺要集中精神做學校的功課是很困難的。					
37.	我喜歡自己找出做學校功課的方法。					
38.	如果學校的所有功課都是簡單淺顯，我就會十分高興。					
39.	我在學校盡量做好，是爲了令老師開心。					
40.	我們在學校讀書是爲了日後能成爲社會上有用的人。					
41.	我覺得上堂通常都是很沉悶的。					
42.	對我來說，要做得較其他同學好是很重要的。					
43.	學校應教導我們如何清楚辨別是與非。					
44.	我要努力，使父母能引以爲榮。					
45.	學業成績差，令我感到自卑。					
46.	父母經常稱讚我的學業成績好。					
47.	學業表現不好，令我覺得很慚愧。					
48.	我的學業成績一向欠佳，相信將來亦不會有突破。					
49.	在學科成績方面，我未能作出任何改善。					

		非常同意	同意	不肯定	不同意	非常不同意
50.	父母期望我能完成中學教育。					
51.	我在學校的功課應該可以做得更好，但我不準備加把勁。					
52.	如果不用應付艱深的測驗，我就會十分高興。					
53.	學校應幫助我們認識新科技及其運用方法。					
54.	我在學業方面表現理想，是因爲我很聰明。					
55.	不幸的事情發生在我身上，我也控制不了。					
56.	父母經常告訴我，如想日後有美好生活，便要把書讀好。					
57.	我可以在整個課堂內集中精神聽講。					
58.	我運氣不好，很多不如意的事都發生在我身上。					
59.	我的學校的生活充滿令我感到興趣的東西。					
60.	很多在日常生活發生的事，都不是我能力可以改變的。					
61.	父母經常告訴我，做功課時訂下時間表是十分重要的。					
62.	我在學校考試中取得低分，是因爲未有依照考試的範圍溫習。					
63.	學校很多科目的學習範圍，我都應付不來。					
64.	學校的功課那麼困難，我想我要放棄了。					
65.	如果我的分數較其他同學高，我就會十分高興。					

		非常同意	同意	不肯定	不同意	非常不同意
66.	我喜歡做艱深的工作，因爲我喜歡挑戰。					
67.	我發覺要有效地編排讀書時間是很困難的。					
68.	我希望愈快不用讀書愈好。					
69.	我們在學校讀書是爲了將來能賺取更多金錢。					
70.	當學科成績好，我會覺得十分自豪。					

本問卷完

Questionnaire on Teachers' Perceptions of Students' Motivation for Learning and Disruptive Behaviour (English Version)

This questionnaire intends to explore your perception of your students' motivation for learning and behavior. Please read each statement carefully and put one tick one of the 5-point scale which best shows your views.

	I strongly agree	I agree	I'm not sure	I disagree	I strongly disagree
1. Many students show interest in their studies.					
2. Many students do not seem to make much effort and take their study seriously.					
3. Many students prefer easy schoolwork that can be done with little effort.					
4. Many students make excuses for not completing schoolwork.					
5. Many students volunteer to answer questions and provide answers when called on in class.					
6. There are many noisy, badly behaved students in the school.					
7. I aim to use encouragement in my teaching and focus on students' strengths.					
8. I treat each of my students as valuable and unique.					

	I strongly agree	I agree	I'm not sure	I disagree	I strongly disagree
9. I endeavour to develop students' sense of responsibility and make them responsible for their behaviour.					
10. When I manage students with behaviour problems, I guide them to be more cooperative in class.					
11. Many students enjoy their schoolwork in class.					
12. Many students are indolent in class and do not show any effort in schoolwork.					
13. Many students can concentrate for the whole period.					
14. Many students can figure out how to do school assignments on their own.					
15. Many students in the class are underachieving in relation to their ability.					
16. Many students in the class lack ability to cope with their schoolwork.					
17. Many students in the class give up or won't try in the belief that they lack the ability to tackle the task.					

	I strongly agree	I agree	I'm not sure	I disagree	I strongly disagree
18. Many students are troublesome in class, hindering other students' work.					
19. Many students in the class do not make any serious attempt to tackle their work at school in order to avoid the risk of failure.					
20. Many students in the class will make genuine efforts to overcome the problem when they do not understand something or get a low mark.					
21. I find many students in the class difficult or impossible to motivate.					
22. Many students want their work to be better than their classmates' work.					
23. Many students like difficult schoolwork because they find it more interesting.					
24. In academic areas, many students do not try hard to improve their performance.					
25. Many students are unwilling to ask for help from teachers even when help is needed.					

The following is a list of undesirable kinds of behaviour which your students may exhibit in class. Please put a tick in the appropriate box showing how many students in your classes have exhibited such behaviour in the previous week.

Item	10 students or more	7 – 9 students	4 – 6 students	1 – 3 students	None
26. Sleeping in class					
27. Bullying classmates					
28. Cheating					
29. Day-dreaming					
30. Disobeying teachers' instructions					
31. Shouting or yelling in the class					
32. Lateness					
33. Use of bad language					
34. Being talkative in class					
35. Truancy					
36. Reading / possession of obscene magazines, pictures					
37. Unable to control emotions / impulses					
38. Showing no response to others					
39. Incessantly asking questions and making noises					
40. Failure to hand in assignments					

End of this Questionnaire

Questionnaire on Teachers' Perceptions of Students' Motivation for Learning and Disruptive Behaviour (Chinese Version)

教師問卷

本問卷旨在了解你的學生的學習態度和行爲表現。請細閱每條問題，然後在適當的空格內填上「✓」號。

		非常同意	同意	不肯定	不同意	非常不同意
1.	很多學生對學業有興趣。					
2.	很多學生在學業方面似乎未盡全力，學習亦未夠認真。					
3.	很多學生喜歡那些祇需付出少許努力的淺易功課。					
4.	很多學生未能完成學校功課，總是有很多藉口。					
5.	很多學生在堂上會自願回答老師的問題；老師點名發問時，亦會回答。					
6.	學校裏有很多學生經常吵鬧、行爲差劣。					
7.	教導學生時，我會多用鼓勵的方法，並　眼於他們的長處。					
8.	我認爲每個學生都是有價值和獨特的。					
9.	我致力培養學生的責任感，使他們對自已的行爲負責任。					
10.	教導有行爲問題的學生時，我會指導他們在課堂上多多合作。					
11.	很多學生在課堂上能愉快學習。					
12.	很多學生上堂表現懶洋洋，做功課提不　勁。					

		非常同意	同意	不肯定	不同意	非常不同意
13.	很多學生都能夠在整個課堂上專心上課。					
14.	很多學生都能自行做妥堂課。					
15.	若以學生的能力來衡量，很多學生都未能充分發揮個人的能力。					
16.	很多學生並未具備足夠的能力來應付學校功課。					
17.	很多學生認爲自己沒有能力應付學業，因此在學習上採取放棄或不肯嘗試的態度。					
18.	很多學生在課堂上惹麻煩，因而影響其他同學學習。					
19.	很多學生怕失敗，不肯認真地嘗試完成學校功課。					
20.	很多學生在學業上遇有不明白的地方或成績欠佳時，都會積極地克服問題。					
21.	我覺得難以或無法提高很多學生的學習興趣。					
22.	很多學生都希望自己的成績較其他同學優勝。					
23.	很多學生喜歡艱深的功課，認爲更有趣味。					
24.	很多學生都不會努力嘗試改進學業成績。					
25.	很多學生雖然需要協助，但都不願意要求老師幫忙。					

(請續下頁)

	下表列載多項學生在課堂上可能出現的行爲問題。請在適當的空格內填上「✓」號以顯示上星期在你任教的課堂內，出現這些行爲的學生人數。					
	行爲	10人 或以上	7至 9人	4至 6人	1至 3人	沒有
26.	上堂睡覺					
27.	欺凌同學					
28.	不誠實的行爲					
29.	發白日夢					
30.	不服從老師的指導					
31.	上課時大叫或尖叫					
32.	遲到					
33.	說粗言穢語					
34.	上課時經常說話					
35.	逃學					
36.	閱讀或藏有色情刊物或圖片					
37.	不能控制自己的情緒/衝動					
38.	對人毫無反應					
39.	不斷提問及發出噪音					
40.	欠交功課					

本問卷完，多謝合作。

Table of Mean Ratings of Students' Background Variables in Relation to Motivational Dimensions (N=207) ***Appendix VI***

Categories	Father's occupation	Father's education	Mother's occupation	Mother's education	No. of siblings
Key	1=Professional,2=Technical 3=Clerical,4=Manual, 0=unknown	1=Primary,2=Secondary 3=Tertiary,0=unknown	1=Professional,2=Technical 3=Clerical,4=Manual, 5=Others, 0=unknown	1=Primary,2=Secondary 3=Tertiary,0=unknown	0=0,1=1,2=2,3=3 4=4,5=5,>6=6
Attribution success to internal factors	NS	NS	NS	NS	NS
Attribution success to external factors	NS	NS	NS	NS	NS
Attribution of failure to internal factors	NS	NS	NS	NS	NS
Attribution failure to external factors	NS	NS	NS	NS	NS
Task-oriented	NS	NS	NS	NS	NS
Work avoidance	NS	NS	NS	F=2.72,p<0.046 0=2.94,1=3.07,2=3.29,3=3.69	NS
Ego-oriented	NS	NS	NS	NS	NS
Helplessness	NS	NS	NS	NS	NS
Hopelessness	F=2.62, p<0.036; 0=3.00, 1=2.60, 2=3.30,3=3.56, 4=3.13	NS	NS	NS	NS
Negative emotion	NS	NS	NS	NS	NS
Self-efficacy	NS	NS	NS	NS	NS
Self-worth	NS	NS	NS	NS	NS
Extrinsic value of purpose of education	NS	NS	NS	NS	NS
Intrinsic value of purpose of education	NS	F=2.80, p<0.037; 0=2.25,1=2.02,2=2.06,3=1.38	NS	NS	NS
Parental support	NS	F=4.88, p<0.013; 0=2.80,1=2.83,2=2.56,3=2.12	NS	F=4.05,p<0.018; 0=2.84,1=2.82,2=2.56,3=2.42	F=2.42, p<0.035; 0=2.56,1=2.64,2=2.67,3=2.72, 4=3.17,5=2.98,6=2.42
Positive attitude towards schooling	NS	NS	NS	NS	NS
Negative attitude towards schooling	F=3.83, p<0.005; 0=2.93, 1=2.57, 2=3.21, 3=3.92, 4=3.20	F=7.60, p<0.003; 0=2.60,1=3.12,2=3.21, 3=3.92	F=2.45,p<0.035; 0=2.80, 1=2.94,2=2.55, 3=3.44,4=3.11,5=3.21	F=5.76, p<0.005; 0=2.66,1=3.05, 2=3.21,3=3.78	NS

Note: Only indicates those variables which show significant differences in motivational dimensions by ANOVA