CHAPTER 1
INTRODUCTION

1.1 PRIVATE HIGHER EDUCATION

Since the 1980s, private education has expanded rapidly in Malaysia. The trend towards universal secondary education has resulted in the increased demand for higher education. Owing to the limited places provided by the local public institutions of higher learning and the ethnic quota system, large number of non-Bumiputra students pursued higher education overseas. However, many cannot afford the high cost of overseas education, especially after the financial crisis in 1997. To meet the growing demand for higher education, the number of private colleges with twinning programmes has proliferated in recent years.

The number of private institutions of higher learning has increased rapidly from 156 in 1992 to 354 in 1996 and 574 in 2000. Figure 1.1 shows that the number of students enrolled in these institutions had increased ten-fold from 15,000 in 1985 to 150,900 in 1998. The private institutions are mostly located in the urban areas in the west coast of Peninsular Malaysia. A little more than half of these institutions are located in either Kuala Lumpur or Selangor (see Table 1.1).
Figure 1.1: Student enrolment in private education institutions, 1985 – 1998

![Bar chart showing student enrolment in private education institutions from 1985 to 1998. The chart indicates a significant increase in enrolment over this period.]


<table>
<thead>
<tr>
<th>Year</th>
<th>Number</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1985</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1990</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1995</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1998</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 1.1: Number of private higher educational institutions by state, 2000

<table>
<thead>
<tr>
<th>State</th>
<th>Number</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kuala Lumpur</td>
<td>153</td>
<td>26.7</td>
</tr>
<tr>
<td>Selangor</td>
<td>135</td>
<td>23.6</td>
</tr>
<tr>
<td>Pulau Pinang</td>
<td>52</td>
<td>9.1</td>
</tr>
<tr>
<td>Johor</td>
<td>48</td>
<td>8.4</td>
</tr>
<tr>
<td>Perak</td>
<td>38</td>
<td>6.6</td>
</tr>
<tr>
<td>Negeri Sembilan</td>
<td>23</td>
<td>4.0</td>
</tr>
<tr>
<td>Melaka</td>
<td>18</td>
<td>3.1</td>
</tr>
<tr>
<td>Kedah</td>
<td>18</td>
<td>3.1</td>
</tr>
<tr>
<td>Pahang</td>
<td>13</td>
<td>2.2</td>
</tr>
<tr>
<td>Kelantan</td>
<td>13</td>
<td>2.2</td>
</tr>
<tr>
<td>Terengganu</td>
<td>8</td>
<td>1.4</td>
</tr>
<tr>
<td>Perlis</td>
<td>2</td>
<td>0.3</td>
</tr>
<tr>
<td>Sarawak</td>
<td>35</td>
<td>6.1</td>
</tr>
<tr>
<td>Sabah</td>
<td>18</td>
<td>3.1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>574</td>
<td>100.0</td>
</tr>
</tbody>
</table>

The private colleges offer different programmes ranging from pre-university to post-graduate courses. Pre-university programmes such as ‘A’ Level and matriculation courses from United Kingdom, Australia and Canada are popular among the secondary school leavers. The professional courses, mostly in the fields of accountancy, banking, management and marketing, cater mainly for the mature students who normally enroll as part time students. Examinations are conducted by the examination boards of their respective professional bodies or associations.

Some private colleges offer twinning programmes. Under these arrangements, students pursue part of the degree courses of foreign universities locally. During the 1997-98 economic downturn, many parents could not afford to send their children overseas to pursue higher education. In order to provide a more affordable tertiary education, many private colleges have set up ‘3+0’ programmes to enable students to pursue the full degree courses of foreign universities locally.

All the private education institutions are under the supervision of the Department of Private Education, Ministry of Education. In 1996, the National Accreditation Board (LAN) was established to ensure the courses and programmes provided by the private higher educational institutions conform to certain standards.

In order to meet the demand for skilled and trained manpower to keep pace with technological development, greater emphasis has been and will continue to be given on the Science subjects. The total enrolment in the Science stream in secondary schools was
targeted to increase from 19.8% in 1995 to 25.7% in 1998. The number of Science laboratories increased from 7,112 in 1995 to 7,894 in 1998. Teaching methods of Science and Mathematics subjects have been geared towards enhancing the thinking ability of students (Malaysia, 1996; p129).

1.2 OBJECTIVES OF THE STUDY

Differences in academic achievement, and factors affecting such differences are important aspects in the field of education. Factors such as parent’s socio-economic status, family size, aspirations of both parents and children, and other characteristics of the children such as ability, motivation and their personality traits and habits have all been shown to be associated with academic performance in schools.

Past studies had focused on the academic performance of primary and secondary school students. These include research done in Malaysia by Ng (1985), Ong (1986) and Leong (1990). However, little research has been done on academic performance at tertiary level. In keeping with the increased enrolment at private colleges, it is important to have a better understanding of the effect of educational inputs, and socio-economic and environmental factors on academic performance of college students.
The objectives of this study are:

(1) To examine the differentials of academic performance as measured by examination results among students in terms of the demographic, socio-economic, as well as study and social behavioral variables.

(2) To identify the important variables that affect college student's performance in examinations.

(3) To make recommendations to enhance efforts in the planning and development of education in private colleges in Malaysia.

A host of predictor variables will be examined to provide a better understanding of the interactive relationships between background and behavior characteristics of students and their academic performance. The focus of this study is to examine the effects of student’s background characteristic variables (student’s characteristics, socio-economic background and previous academic achievement) and student’s behavior (study behavior and social behavior) on their academic performance at college level.
1.3 LITERATURE REVIEW

This section reviews studies that are related to this research report. In view of the
dearth of research on academic performance in Malaysia, studies done in other countries
will also be discussed briefly to guide further analyses on this topic.

1.3.1 Studies in developed countries

Numerous studies have been carried out to identify the determinants of factors
affecting the academic performance. Entwistle and Wilson (1977) pointed out that at
school level, social variables such as father’s occupation, parental education, family size
and position in family have shown consistent relationship with academic attainment.
Musgrove (1976) argued that generally small family produces the most intelligent
children as measured by intelligence tests, presumably because ‘intelligence’ is to a
considerable extent inherited, and intelligent parents tend to be more likely to practice
birth control. Children with ambitious parents tended to be ‘high-achievers’. When the
school’s academic standard, the material standards of the home, and parental ambitions
were analyzed for their relative importance, parental encouragement was shown to have
the greatest effect. High achievers, both academically and professionally, are those whose
family relationships are warm and supportive.

According to Banks and Finlayson (1973), the home environment is a very
important factor in determining the student’s academic performance. In their book
entitled 'Success And Failure in the Secondary School: An Interdisciplinary Approach to School Achievement', they observed that:

"Clearly a direct link is feasible between the intellectual level of the parents and 'educability' of the home, which can express itself in such practical ways as helping with homework as well as in shared hobbies of an 'intellectual' kind, and in a greater pressure for educational success. The direct effects of educational background are also likely to be pervasive since the level of education can manifest itself throughout the whole style or way of life. Consequently a full examination of its influence would need to include a consideration not only of linguistic styles and their transmission but of the whole pattern of parent-child interaction."

Brutsaert (1998) found that the influence of parental socio-economic status upon children's academic performance is not as strong in Catholic schools in United Kingdom as it is in State schools. This may suggest that the moral support and family beliefs in the value of education play an important role to motivate the students to achieve excellence, rather than the wealth and other material support. However, Morris (1998) found that the academic performance of students in Catholic schools at ages 11+ to 16+ is significantly better than those from other schools but not at age 18 and over, when they are in the advanced level. This indicates that family's influence and socio-economic status play less important roles at higher educational level.

More recent studies have found remarkable relevance of cultural factors in affecting academic performance. Bagley and Mallick (1998) pointed out that the concept
of cognitive style is related to the academic performance. The cognitive level is directly proportionate to urbanization, migration and exposure to computer. This may also relate to some of the factors responsible for an increase in mean levels of intelligence seen in students in urban areas.

Schommer (1998) observed that academic performance is affected by individual's beliefs about the nature of knowledge, learning and epistemological beliefs. On the other hand, age and education are found to affect individual's epistemological beliefs in unique ways. As individuals grow older, they become more convinced that the ability to learn can be improved. The more education adults obtain the more likely they are to believe that knowledge is highly complex and constantly evolving. Hence, the older students work harder to improve their ability to learn. However, past education experiences would determine the ability to comprehend complex text.

Severiens and Dam (1998) found the existence of gender differences in learning orientations. Gender differences appeared on relating ideas, operational learning, fear of failure, and negative attitude to studying and extrinsic motivation. Different study behaviors directly affect the academic performance of students.

In a survey on gender differences in educational achievement in New Zealand on 1000 Christchurch-born children from the point of school entry to the age of 18, Fergusson and Horwood (1997) found that male students lagged behind female students. The differences could not be explained by gender differences in intelligence since boys
and girls had very similar IQ test scores. The poorer performance of male students as compared to female students was attributed to gender differences in classroom behaviors with the former more prone to disruptive and inattentive behavior patterns as compared to the latter.

Kivilu and Rogers (1998) found that there were significant gender and cultural experience variations in the mean rating of the attribution factors. They suggested that perceived success is attributed to external factors (e.g. task difficulty) and failure to internal factors (e.g. ability). Oriental students assume more personal responsibility for failure and attribute success to luck. Girls are more likely than boys to attribute success to unstable factors (effort), but failure to stable factors (ability). Therefore, girls work harder than boys in order to be successful.

Research in the area of teacher-student relationship related to student’s achievement has been conducted by Brophy and Good (1974). They found that students of different achievement levels have very different kinds of interactions with their teachers. While high achieving students enjoyed more promotive and supportive contacts with their teachers, low achievers were more likely to have conflicts with teachers.

Evans (1969), in his book entitled “Modern Educational Psychology--A Historical Introduction”, stated that:

“The idea behind culture-pattern theory is that personality differences are due to customs, standards and ideas of different ethnic and regional groups as well as to the
influence of different social and occupational sub-groups within the same culture. Thus the status which people possess in such groups, the roles they play in them, their habitual mode of behaviour and, above all, their tendency to conform to the proprieties, inhibitions and sanctions of prevailing social conditions, are all examples of how the culture-pattern within which they live helps to shape the development of their personality. The field theory, however, mentioned that a person is conceived largely as a set of relationship rather than as someone unique in himself."

The two theories suggest that a person, as a member of the society, is influenced by the environment and always tries to live up to their expectations, especially in education. The relationship among the members of the society is another measurement of the recognition to the existence of a person in the society.

Education is known to be strongly correlated with good health. Healthy students will be able to perform better in examination. Leigh (1998) pointed out that parent’s education, especially that of mother’s, is positively correlated with children’s health. This may explain part of the effects of parent’s education on children’s academic performance, as healthy students tend to perform better than the unhealthy ones.
1.3.2 Studies in Malaysia and South East Asia

Toh (1983) observed that in Malaysia the student's socio-economic background did have a significant effect on academic performance. He argued that education is more readily available to the upper strata of the society, and their children generally perform better as well. He pointed out that while 45% of children whose parents are professionals or executives make it to university, only 3% of children whose parents are unskilled manual workers make it there. The educability between children of different socio-economic status started from the deprivation of appropriate experiences during early childhood, as children from poor families are not prepared with educational experiences to enable them to acquire social competence and cognitive skills that would enable them to adapt themselves to school culture at the later stage.

Wan Azizah (1997) in her keynote address at the opening of National Seminar on "Parenthood Challenges in the 21st century" mentioned that the quality of parenting determines how well their children would do in school. Love and care are the important ingredients of smart parenting in bringing up well adjusted, healthy, innovative, creative and smart children. Smart parents, together with smart schools and smart teachers, will produce a smart generation. Lee Kuan Yew, the former Prime Minister of Singapore had expressed his worries that low birth rate among educated women would reduce the pool of human talents in his country. According to him, intelligence can be inherited, and educated parents would provide conducive environment for the development of positive qualities. However, Chan (1983) disagreed with Lee Kuan Yew's view. According to
him, the existing scientific methods have not been able to prove that intelligence is hereditary. He also questioned the wisdom of ignoring the influence of school factors, upbringing or environmental factors against genetic endowment.

Dunn (1984) observed the existence of significant differences among children from the same family. He found that these children differ in their personality, intelligence and psychopathology almost as much as totally unrelated children brought up in different families. This implies that there is very little impact of the physical environment that parents provide for children since parental characteristics must be essentially the same for all children in a family. The implications are either that parental behaviors have no effect, or that the only effective aspects of parenting must vary greatly from one child to another child within the same family. The quality of parent-child relationship, sibling relationship may differ within the same family. However, parental influence decreases as children grow older.

Asth a (1984) asserted that people become more achievement oriented as they grow older. People have to satisfy the need to possess affectionate relationship with others and to have a sense of belonging to a social group, and then the next level deals with self-esteem need.

Wan Rafei (1984) in his research, found that the urban students have higher achievement motivation than their rural counterparts. The level of achievement motivation was found to be highest among the Chinese and lowest among the Indians,
with Malays in-between. The findings are consistent with the theory that the more enterprising groups are more achievement motivated, as the economic activities are mostly carried out in the cities, especially among the Chinese.

According to Chia (1997), Chinese students excel in studies due to the collective efforts of the community. Teachers in Chinese schools, besides preparing children academically, also place great emphasis on character development. Good values such as being obedient, responsible and diligent are instilled in students at a young age. They are also motivated to strive for excellence. Successful people in terms of career and character are widely quoted and highly praised in newspapers, magazines, books and words of mouth so that others emulate them. Educational achievement is one of the major measuring instruments in ‘rating’ a child, and always used as the predictor of their future. Thus, Chinese parents tend to put a great deal of emphasis on examination results.

Ng (1985) found differences in school climate among the eight schools that he studied had contributed to the variance in academic achievement of pupils. Each school was characterized by an ideological framework, a system of norms and values and had a set of student status-role definition, evaluations and expectations characterizing the behavior expected of students. It was found that the contribution of school climate to achievement was higher in the high-achieving than low-achieving schools.

Ong (1986) found that a supportive learning environment at home where students are able to receive better care, learning facilities and interaction has contributed to the
Chinese language achievement. He summarized the relationships between home background, motivation, peer influence and Chinese language achievement as follows:

<table>
<thead>
<tr>
<th>Significant factors</th>
<th>Insignificant factors</th>
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<tbody>
<tr>
<td>Father's educational level</td>
<td>Mother's educational level</td>
</tr>
<tr>
<td>Father's education-medium of instruction</td>
<td>Father's occupation</td>
</tr>
<tr>
<td>Language most often used at home</td>
<td>Mother's occupation</td>
</tr>
<tr>
<td>Chinese Language exposure</td>
<td>Mother's education-medium of instruction</td>
</tr>
<tr>
<td>Motivation</td>
<td>Parent's help</td>
</tr>
<tr>
<td>Peer influence</td>
<td>Sibling's help</td>
</tr>
<tr>
<td></td>
<td>Tutor's help</td>
</tr>
</tbody>
</table>

Ong’s findings show that father’s educational level is relatively more important than that of mother’s educational level in explaining differentials in student’s language achievement. The parent’s occupation factor is less influential compared to parental educational background. The environment factors such as language exposure, language used at home and peer influence are the main determinants of language achievement. Contrary to expectation, external factors such as help from parents, siblings and tutors to the weak students showed a negative correlation with language achievement.

In a survey carried out for the Educational Planning and Research Division of the Ministry of Education, Malaysia, Leong (1990) found that the important background factors influencing SRP results were father’s income, locality of the school and father’s educational attainment, which explained 15.8%, 2.8% and 1.2% respectively the variance in student academic achievement. At SPM level, father’s income and mother’s educational level explained 8.6% and 2.6% of the variance in student’s academic performance. At STPM level, socio-economic status was not an important factor at all.
Other factors such as ethnicity and locality of school were more influential, explaining 4.7% and 1.9% of the variance in STPM results. The finding shows that the strength of influence of socio-economic status weakens as students proceed to higher educational level.

The study on the impact of school factors and student’s study behavior on academic performance shows that taking tuition is the best single predictor at SRP level. At SPM and STPM levels, the student’s self-esteem, attitudes towards school, teachers and principals, social reasons for schooling and the teaching behavior of teachers are major predictors of student’s academic performance (Leong, 1990).

Home factors such as the ownership of home equipment (telephone, piano, electrical appliance or vehicles), parent’s attitude (aspiration, praise, reward or punishment), number of siblings, availability of own room, are important factors influencing SRP examination results. However, the effects of these factors tended to diminish as the students advance to higher levels. The coefficient of determination of these factors on examination results decreases from 32% at SRP to 19.5% at SPM and 16.6% at STPM level (Leong, 1990).

Lim (1998) found that the academic performance of Chinese students from the Faculty of Economic and Administration, University of Malaya is much better than that of their Malay and Indian counterparts. She attributed the differentials to the quota system in the selection of new students. For the Chinese, only those with excellent STPM
results are able to enter the local public universities. With a stronger foundation, they are able to produce better results at the university level compared to students of other races.

The review of a number of previous findings show that educational outcome is not a product of a single variable, but is an interweaving of complex variables that operate in a particular educational setting. Therefore, many variables can be included into a statistical analysis. Previous studies show significant influence of student's background factors on academic performance, especially the parental influence. In this study, we will also include student's behavioral factors beside these background factors in the analyses.
1.4 ORGANIZATION OF THE REPORT

In chapter 2, the research setting, methodology and sources of data will be presented. It will provide a description of the sampling design and methods of data collection.

The characteristics of the sample will be described in Chapter 3. These include the demographic, background and socio-economic variables, study behavior and social behavior variables and student’s previous academic achievement (SPM aggregate), that will be used to explain variations in the academic performance at the college level.

In Chapter 4, differentials in academic performance among students at college level will be examined. The study will only involve the two main programmes, the CAL (Cambridge ‘A’ Level) and SAM (South Australian Matriculation). The analysis is exploratory in nature, aimed at identifying all variables that influence academic performance at pre-university level. This will be followed by multivariate analyses on the important variables which were identified in the earlier part of the chapter, in order to rank the variables according to the magnitude of their relationship with student’s academic performance. A summary of the findings, conclusions, and recommendations will be presented in Chapter 5.