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**THE DEVELOPMENT OF ENTREPRENEURSHIP AND ENTERPRISE
IN
HIGHER EDUCATION IN MALAYSIA**

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By

Mohd. Salleh Hj. Din

Thesis submitted for the fulfilment of the
Degree of Doctor of Philosophy
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1992



14 OCT 1992

THE DEVELOPMENT OF ENTREPRENEURSHIP AND ENTERPRISE IN HIGHER EDUCATION IN MALAYSIA

ABSTRACT

This thesis addresses both problem and concept. It addresses the major problem of the restructuring of the employment pattern in the development planning of Malaysia, particularly the creation of an entrepreneurial Bumiputra community. In this respect, a major expectation has been placed upon higher education as a vehicle for developing enterprising graduates in general, and Bumiputra entrepreneurial graduates in particular. This issue has been argued as crucial to the achievement of national development priorities of Malaysia. To address the problem two conceptual models are developed. The first is a broad model of the development of entrepreneurship which explores the influences upon career aspirations towards entrepreneurship. In this model, a particular emphasis is placed upon the role of enterprising behaviour. The second model brings together key influences upon the learning process. The model is then used to explore the potential impact of the process of learning on the development of enterprising behaviour. The models are applied to samples of students and teachers at three Malaysian universities. While the research is of an exploratory nature, there are several important contributions. The findings support a view that enterprising behaviour is associated with aspirations to entrepreneurship and self employment. They also indicate the importance of work experience alongside the owner-manager or entrepreneurial parent: this seems to be of much greater influence than merely having an entrepreneurial parent as a role model. The research does not altogether support the view that aspirations towards self employment are related to one particular ethnic group. The study also underlines some important differences in learning styles and expectations between teachers and students: in particular it establishes that enterprising people have distinctive learning styles. Overall the findings underpin the view that it may be possible to create an enterprising and entrepreneurial community via higher education provided that appropriate strategies are adopted.

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

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CHAPTER ONE

INTRODUCTION AND OVERVIEW

1.0 THE PURPOSE OF THE RESEARCH

The overall purpose of this research is to explore the influences upon student career aspiration towards entrepreneurship in Malaysia. In addressing this issue, the research focuses upon a central Malaysian development problem of the restructuring of the Malaysian society. The strategies for restructuring of the Malaysian society have been set out in the development plans of Malaysia which highlight, in particular, the need for the restructuring of the employment pattern and the creation of an entrepreneurial Bumiputra community. In this respect, a major expectation has been placed upon higher education to play a leading role in generating enterprising graduates in general and influencing a greater number of Bumiputra graduates into self employment in business in particular. To address this problem, two conceptual frameworks are developed. The first is a broad framework which seeks to explore the influences upon career aspiration towards self employment and its relationship to enterprising behaviour. The second framework seeks to explore the processes of learning and how they might be influenced to encourage the development of enterprising behaviour.

2.0 THE IMPORTANCE OF THE RESEARCH

There are several reasons for the choice of the above area of research which is concerned with the development of enterprising behaviour and entrepreneurship in higher education in Malaysia.



Firstly, entrepreneurship "*stands as part of the new frontier of business education in 1990s*" (Katz, 1991 p. 85). Secondly, entrepreneurship is considered as part of the stock of "*human capital*" (Schultz, 1980). Moreover, "*enterprise and entrepreneurship*" have been recognised as important elements for the socio-economic development of a country (Goff, 1991). Thirdly, higher education has been identified as being able to shape the future society (Vagianos, 1986). Finally and more importantly, higher education in Malaysia has been given the major responsibility in human resource development to generate enterprising graduates in general and entrepreneurial Bumiputra graduates in particular to ensure the long term supply of a "*viable Bumiputra entrepreneurial community*" (Malaysia, 1991a).

The importance of this research in the development context of Malaysia requires further elaboration. Since the launching of the New Economic Policy by the Government of Malaysia in 1971, the role of higher education has been considered central to the alleviation of poverty and the restructuring of society through: the creation of a viable Bumiputra Commercial and Industrial Community; management and employment restructuring; and the restructuring of ownership, control and participation in the corporate sector (Malaysia, 1991a).

The creation of a Bumiputra commercial and industrial community involves assisting "*existing as well as potential entrepreneurs and businessmen to establish themselves in the commercial and industrial sectors*" (Malaysia, 1991a p. 46). Employment restructuring involves the absorption of more Bumiputra and non-Bumiputra in certain sectors of the economy so that the employment pattern in these sectors of the economy represents the spread of ethnic composition of the country. There has been good progress in achieving the objective of poverty alleviation. However, the objective of creating Bumiputra or indigenous entrepreneurship has not been successful (Malaysia, 1989; 1991). In addition,

although there have been some achievements in respect of the employment restructuring objective, the Bumiputra are still under represented in the private sector whilst the non Bumiputra are under represented in the public sector. With regard to the restructuring of the corporate sector, the target has not been fully achieved. Higher education continues to be considered important to achieving the objectives of the New Development Policy (the national development programme which has taken over from the New Economic Policy 1971-1990 and retains its major objectives) which has the key objective of achieving the status of a developed nation by the year 2020 (Mahathir Mohamad, 1991). Against this background of national development priorities, higher education is expected to generate more enterprising graduates in general and entrepreneurial Bumiputra graduates in particular in order to be able to contribute effectively to the above national development objectives (Malaysia, 1991b).

Another reason why the study is important in higher education context relates to the recent phenomenon of graduate unemployment. Several programmes have been designed to encourage the unemployed graduates into self employment in their own business. On the assumption that finance is their main barrier to starting their own business, the government has launched special entrepreneurship development programmes incorporating assistance with start-up capital for unemployed graduates in a bid to motivate them to start their own business (Malaysia, 1989). In spite of financial and training support to develop enterprising graduates and foster entrepreneurship among them, very few have chosen to become self employed. This is particularly so among Malay graduates who remain unemployed for a considerable period but are nevertheless unwilling to venture into their own business (Sallih and Young, 1988). There is evidence to suggest that there is no clear conceptual understanding of the kinds of learning programmes that need to be designed for the development of enterprising and entrepreneurial graduates in

Malaysia (Gibb, 1987a). Interestingly, a significant number of the unemployed graduates are those from business and management programmes who are generally perceived as being better prepared than others to venture into their own business (Sallih and Young, 1988).

To meet the national development objectives and overcome the graduate unemployment problem, the government, as the major investor in higher education, has urged higher education institutions to focus upon giving greater emphasis to developing enterprising graduates and encouraging graduates to be self employed as a long term career goal. Referring to the issue of graduate unemployment and the role of higher education in generating entrepreneurial graduates, the then Minister of Education, Dato' Sri Anuar Ibrahim, admitted:

"It would appear that we are producing graduates for non existing demands..... To put it another way, we may be training and producing people to meet the needs of yesterday In the face of the shrinking formal employment opportunities, be it in the public or private sector, a knowledge of entrepreneurial skills will enable youth to strike out independently as well as to facilitate their entry to the ranks of the self employed" (The Star, June 27, 1989).

Besides meeting the needs of the economy, higher education is also expected by students to prepare them effectively for life (Slee, 1989). If higher education is to meet the needs of the economy and the individual it must seek actively to develop generic core competencies which arguably are closely related to "*enterprising behaviour*" and indeed entrepreneurship (Gibb, 1987b). Developing students' enterprising behaviour and entrepreneurship poses a major challenge for the business schools :

"to alter the balance in what they teach - away from subjects, knowledge and techniques, towards greater concern for developing certain competencies, described earlier as entrepreneurial attributes, around the solution of 'issues' regarded as important by industry" (Gibb, 1987b p. 23)

In developing enterprising graduates in higher education, Scott (1988) suggests that there is a need for higher education to change its culture. Porter (1986) also argues that higher education faces a major challenge because "*academic environments*" traditionally suppress entrepreneurial activities. Porter also suggests that:

"Unless we respond to the challenge, universities run the risk of quite literally going out of business. Only by taking charge of the process, by pioneering intersector relationships, and by instituting creative and innovative management will universities maintain their historical perspective and social leadership" (p. 64)

Thus, there appears to be some challenge, particularly in the Malaysian context for higher education to become more conducive to the development of students' enterprising and entrepreneurial behaviour.

3.0 DEFINITIONS

There are major definitional problems with the concept of enterprise and entrepreneurship. It has been found that there is "*an over-abundance of competing definitions and contrasting lists of different enterprise skills and attributes*" (MacDonald & Coffield, 1991 p.25-26) and enterprise "*runs the risk of meaning everything and nothing*" (Caird, 1990a p. 5). The definitions used in this thesis are drawn from reviews and analysis of the literature as it relates to the thesis objectives. Enterprising behaviour will be defined as a set of behaviours displayed by an individual or group of individuals which include the need for achievement, the need for autonomy, a creative tendency, calculated risk taking and drive and determination (Gibb, 1987b; Caird, 1991a, 1991b). The argument that will be pursued in this thesis which is not without precedent is that entrepreneurs and enterprising individuals share major key personal characteristics. Thus, it will be argued that enterprising behaviour can be demonstrated by those who are not necessarily entrepreneurs but may include individuals who are not engaged in a

profit seeking activity. Entrepreneurship is defined as the pursuit of enterprising behaviour in profit making activity. These above issues are discussed more fully in this thesis.

The definition of small business and small private professional practice too are problematic because of different criteria or criterion used in measuring smallness. Criteria used may include employment size, paid up capital, fixed assets, the involvement of the owner-manager or the professional, or the combinations of any of these and may vary from one industry to another (Chee, 1986). Even measured by employment size, there is no agreement on the number of employees a business or private professional practice must have in order to be categorised as small. The definition of small business used in this study will be those businesses with employees of less than 100. In discussion with a number of private professional practices in the accounting and legal profession in Malaysia, the agreement seems to be that an appropriate definition of a small private professional practice is that of an organisation with less than 20 employees.

4.0 LIMITATIONS OF THE STUDY

This study is exploratory and does not attempt to explain fully the cause-and-effect relationship of independent variables vis-a-vis dependent variables. The study is limited by the accuracy of the two test instruments used which will be discussed in greater detail in this thesis. It is assumed that participants completed the tests in a conscientious manner. In addition, since the samples were taken from business and accountancy students, teachers at higher education and small business owner-managers who participated in an entrepreneurship development programme in higher education, the findings and conclusions may not apply to dissimilar settings.

5.0 OUTLINE OF THE THESIS

The thesis is presented in eight chapters. Chapter 1 outlines the purpose and significance of the study and its limitations. The definitions of enterprising behaviour, entrepreneurship, small business and small private professional practice are suggested.

Chapter 2 examines the antecedents of the New Economic Policy and the development of national development priorities of Malaysia. Then, the role of higher education in developing enterprising and entrepreneurial graduates to achieve the two development policies (the New Economic Policy, 1971-1990 and New Development Policy, 1991-2000) are discussed. The issues of higher education in meeting the challenges are then dealt with.

Having established the importance of enterprise and entrepreneurship development in higher education and the challenges presented to these in achieving national development priorities in Malaysia, Chapter 3 reviews the literature of entrepreneurship in order to provide an understanding of the various stages of entrepreneurship development and its relationship to enterprising behaviour. Chapter 4 focuses upon the process of learning and the way this might be influenced in order to stimulate the development of enterprising behaviour.

From one review of the literature in Chapters 2, 3 and 4, two conceptual models are developed : a) a model of enterprise and entrepreneurship development; and b) a learning model for developing enterprising behaviour in higher education. Chapter 5 sets out the key research questions to be drawn from these models, the hypotheses to be tested and their significance.

Based on the hypotheses suggested in Chapter 5, the choice of research design and the methods appropriate to test the hypotheses are discussed in Chapter 6. The chapter also discusses the result of the test-retest reliability of the instrument used and the challenges of negotiating access.

The findings and analysis of the field work are presented in Chapter 7. On the basis of these and the rest of the research, Chapter 8 seeks to generalise the wider implications of the research findings to be derived from the tested models of: enterprise and entrepreneurship development; and learning for the development of enterprise and entrepreneurship. Finally, the chapter suggests some outstanding issues for further research.

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CHAPTER TWO

MALAYSIA: THE NATIONAL DEVELOPMENT PRIORITIES AND EDUCATION

1.0 INTRODUCTION

This chapter has two major objectives. The first is to describe the major problem which this thesis addresses, namely the issue of restructuring of the employment pattern in the various sectors of the economy so that it represents the ethnic composition of Malaysia. In particular, it highlights the importance given under the New Economic Policy of Malaysia to create a Bumiputra industrial and commercial community. It provides an important historical context to this problem which demonstrates the depth of the issue. The second objective is to focus upon the role given to higher education in Malaysia in the restructuring of the employment pattern and stimulating enterprise and entrepreneurship. The chapter ends with the issues that need to be addressed.

2.0 THE GENERAL SETTING OF CONTEMPORARY MALAYSIA

Malaysia was formed in 1963 as a merger of the Federation of Malaya and the British colonies of Sarawak, North Borneo (presently called Sabah) and Singapore. Before the merger, the Federation of Malaya gained its independence in 1957 from the British. However, in 1965, Singapore left Malaysia and became an independent country called the Republic of Singapore. The Federation of Malaya, which is now called Peninsular Malaysia, has an area of 131,587 square kilometres while Sarawak and Sabah cover a total area of 198,846 square kilometres.

According to the latest population estimate (Malaysia, 1991a), the total population of Malaysia was about 18.01 million in 1990 and is expected to reach about 20

million in 1995. It was estimated that in 1990, the population would consist of 61.9% Malays and other indigenous groups, 29.3% Chinese, 8.1% Indians and 0.06% Others. In 1988, the median age of the population was about 21 years and the working age population, that is those aged 15-64, was about 59% of the total. The working age population is reported to be growing at a faster rate than the whole population (Malaysia, 1989).

In 1990, the population of Peninsular Malaysia was estimated at 14.7 million and formed 81.75 per cent of the population of Malaysia. It was made up of 58.3 per cent Bumiputra, 31.25 per cent Chinese, 9.8 per cent Indians and 0.7 per cent Others. In the same year, Sabah had a population of 1.5 million which formed 8.5 per cent of Malaysia's total population and was composed of 85.5 per cent Bumiputra, 13.6 per cent Chinese, 0.5 per cent Indians and 0.4 per cent Others. Sarawak had a population of 1.7659 million which formed 9.8 per cent of the total population of Malaysia and was composed of 71.3 per cent Bumiputra, 27.7 per cent Chinese, 0.6 per cent Indians and 0.4 per cent Others.

Its rich endowment of economic resources has made Malaysia one of the most prosperous countries in Southeast Asia. The population has a mean monthly household income of M\$1254 in 1990. Although the mean monthly household income is relatively higher than before, the uneven distribution of incomes and the problem of poverty remain the central issues of Malaysia's development planning.

In terms of inter-ethnic differences in income, the ratio of mean income of Bumiputra compared to that of the Chinese in Peninsular Malaysia improved from 56.7 per cent in 1985 to 58.8 per cent in 1990. At the same time, the ratio of the mean income of Indians to Chinese also improved from 72.8 per cent to 75.9 per

cent. The ratio of the rural household income to that of the urban household increased from 53.5 per cent to 58.3 per cent.

Most of the poverty incidences are reported in the remote traditional village settlements, in plantations and areas formally known as the new villages as well as in some urban areas. However, there is more incidence of poverty in the rural than in the urban areas. In 1990, the incidence of poverty among the rural population was 21.8 per cent while among the urban population it was 7.5 per cent.

2.1 SOCIAL STRUCTURE

There are three major races in Malaysia, These are the Malays, Chinese and Indians. The Malays and other indigenous people of Malaysia are called "*Bumiputra*". The basic element of the traditional Malay social structure was the division of the community into two classes: a ruling class and a subject class. Means (1976) suggests that the traditional Malay community places a low priority on the values of individual initiative and the competitive ethic. Traditional Malays live in rural areas.

Since the colonial days, the Malay social structure has undergone tremendous change. The traditional habits and attitudes are being challenged primarily by the urban and educated Malays who are concerned by the Malay's economic backwardness in comparison with other races in Malaysia. Malays and other indigenous communities are being urged to be enterprising and self employed in business. Presently, although most of the Bumiputra continue to live in the rural areas and engage in agriculture and fishing, there are increasing numbers of Bumiputras living in the urban and semi urban areas. The urban and semi urban Bumiputra mostly work for the government or are employees in large private sector

organisations. Few of them are involved as entrepreneurs in business and commerce.

It was after the commencement of British rule that the Chinese began to immigrate to Malaya in substantial numbers (Means, 1976). When the Federation of Malaya gained its independence in 1957, the number of Chinese in Malaya and Singapore was 3,424,351 (Means, 1976). At the beginning, most of the Chinese immigrants came to Malaya with no intention of becoming permanent residents but "*for the purpose of making a fortune and eventually returning to China*" (Means, 1976 p. 27). Moreover, their presence was not considered as posing a severe political and economic threat to the British. In the economy, for example, the Chinese businesses were not directly competing with the British because they:

"perform middleman functions between the traditional, rural, indigenous sector and the modern capitalist, Western-dominated sector of the so called 'dual economy', occupying a transitional economic sphere between the two..." (Lim, 1983 p. 68).

Traditionally, the Chinese were said to be very enterprising and "*exhibit exceptional imagination and private initiative*" (Means, 1976 p. 31). Small trading, shopkeeping, open-cast mining and transportation became their economic preserve (Jackson, 1961). Some Chinese businesses later grew and became large and modern corporate empires. The common characteristic of Chinese businesses is that they were family owned. Even today if the business is publicly listed in the stock exchange, control and ownership still appear to rest in a single family or group of families related by blood, clan or dialect group. The majority of the Chinese are in urban areas where they dominate most of the businesses.

The phenomenal flow of immigrants from India began when the Europeans began to recruit Indians for plantation labour. Indian traders soon followed. Presently, the

Indians who live in the cities are usually engaged in commerce or are employed in the public services. When compared with Chinese businesses, however, the Indians are outnumbered by about four to one (Means, 1976). Yet, Means argues, they are an important part of the Malaysian business community. On the other hand, the Indians who live in the non urban areas are generally employed on rubber estates. It is interesting to note Means' suggestion that the prestige of a "*white collar*" job is high for nearly all Asians, but this is particularly true of Indians who are partly influenced by a "*caste attitude*" towards employment. However, the trend is believed to be changing because all Indians are being accepted as a race with no caste, at least by other Malaysians.

Unlike the Malays who have only one faith, that is Islam, the Chinese practice many faiths. Most Chinese confess to one or more of the three great religions of China; namely Buddhism, Taoism and Confucianism. However, it is rather difficult to categorize them because in their religious practices and beliefs they are eclectic, choosing to worship both Buddhist and Taoist deities and performing ancestral rites associated with Confucianism. Besides these three great religions of China, many of the Chinese adopted Christianity or Islam as their religion. Most Indians are either Hindus or Moslems.

2.2 POLITICAL AND ECONOMIC SETTINGS

Popenoe (1970) suggests that the essence of "*indirect*" British rule before the Japanese occupation of Malaysia was to "*maintain existing social structure but win over the ruling class to support the colonial power*" (p.133). It was also not the intention of the education system during colonial period to over-educate the Malays whom, the British argued, almost all followed their parents' vocation, chiefly in agriculture (Roff, 1967). Furthermore, a number of government and mission English

schools were situated in the towns and patronised primarily by the Chinese and Europeans. Since most Malays lived in the rural areas, their accessibility to English schools was remote. Most of the Malays gained their education in Malay vernacular schools.

When Malaysia gained its independence from 1957, Malaysia's ethnic groups were divided along socio-economic lines and occupations. The Malays and other indigenous groups remained at the bottom of the socio-economic ladder of their own country which was now being shared with the Chinese and Indians. The granting of citizenship to the Chinese and Indian immigrants, despite their earlier intention of only a temporary immigration, has altered the long term demographic trend of Malaysia. The new feature of independent Malaysia was that it was a "*plural*" society in which "*groups mingle but do not mix...*"(Mehmet, 1977). Ethnic groups were not integrated since they were culturally autonomous, induced to live far apart, subscribing to different religions, speaking different languages and originating from different parts of Asia (Saunders, 1977). In addition, the Malays and other indigenous groups generally participated in the "*traditional*" sector of the economy while the latter were generally urban and engaged in the "*non-traditional*" sector economic activities.

2.2.1 National Unity and Equality

The constitutional arrangement among all major parties in their negotiation for independence was later found to be a source of threat to national unity. In the "*1957 bargain*" all parties which represented the three major races of the country had agreed on the "*special rights*" of the Malays and other indigenous groups while the non Malays were granted citizenship.

"The Malays gained political independence, control of government, and policy which was to be Malay in style and in its system of symbols. In return the Chinese gained more than overseas Chinese had dreamed of - equal citizenship, political participation and officeholder's, unimpaired economic opportunity, and tolerance for their language, religion, and cultural institutions" (Esman, 1972 p. 25).

The Malay privileges and the rights of being citizens which were agreed upon by all parties were incorporated in Article 153 of the Malaysian Constitution. Under these privileges, the Malays were given certain social and economic advantages by law and all parties agreed that gradually the Malays would be helped to venture and manage their own businesses in increasing numbers. These special privileges and other educational policies accepted by all parties later became a subject of criticism and resentment by the non Malays.

Although there was steady economic growth after independence, however national unity remained under threat. Shah (1987) argues that the benefits gained by the Malays and other indigenous groups until the implementation of the New Economic Policy in 1970 were insignificant. For example, employment for the Malay students from Malay medium schools was almost impossible in the business and commercial firms which were dominated by the Chinese. Employers in the private sectors would prefer to employ those who spoke English and Chinese. The Malay language and those who graduated from the system seemed to be of no commercial value. There were very few Malay students in higher education, particularly in science and professional courses. While the non Malays were questioning the rights of the Malays, the Malays were generally poor and their upward mobility was indirectly blocked by their difficulty in getting access to higher education where the medium of instruction was English. At the same time, their horizontal mobility into other modern sectors of the economy was an uphill task.

The issue of Malay privileges, which stimulated racial antagonism between the Malays and the Chinese, was capitalised upon by various political parties in the 1969 general election campaign. As a consequence, on May 13, 1969 in Kuala Lumpur, the worst racial riot in the history of Malaysia's independence broke out.

As a result of the racial riot, the country was put under Emergency Rule and the Malaysian Parliament was suspended. It was during this period that serious measures were taken to ensure national integration and national unity. On August 31, 1970, the Yang di-Pertuan Agong, the King of Malaysia promulgated a Statement of National Ideology or "*Rukun Negara*". In February, 1971 a constitutional amendment was made:

"... to remove sensitive issues from the realm of public discussions so as to allow the smooth functioning of parliamentary democracy; and to redress the racial imbalance in certain sectors of the nation's life and thereby promote national unity" (Malaysia, 1971a p. 2).

2.2.2 Economic Policies

Assessing the past economic policies, it was argued that certain ethnic groups were not getting a relatively fair share of the economy and suffered "*economic deprivation*" (Koyakoti, 1981) which resulted in the existence of ethnic specialisation and "*cultural division of labour*" (Hetcher, 1976). It was possible to associate certain races with a specific economic activity and job category. Moreover, participation in different economic activities and occupations, Robless (1975) argues, yields different rates of return. Thus, they are likely to give different remunerations and different status. The ethnic economic specialisation and cultural division of labour was argued as being inherited from the colonial power and then allowed to flourish during the first decade of the nation's independence in 1957 (Saunders, 1977). As a result of the traumatic inter-racial conflict of May, 13, 1969 which was perceived to

be mainly due to an inequitable distribution of wealth and opportunities prevailing among the races (Malaysia, 1971b; Von Vorys, 1975), the Government introduced the New Economic Policy.

3.0 THE NEW ECONOMIC POLICY (NEP)

The New Economic Policy, which is popularly abbreviated as NEP, sought to dismantle the employment structure and restructure society through socio-economic measures of equitable wealth and employment distribution across racial groups. The New Economic Policy was introduced in 1971 as a package which promised to correct the imbalances in economic well being and employment participation among the population. The Policy was implemented through the development planning instrument over a twenty-year period from 1971 to 1990 with the objective of achieving national unity.

Fundamentally, there were two key elements in the NEP. First, was the eradication of poverty by raising income levels and increasing employment opportunities, irrespective of race. Second, was the restructuring of society to correct economic imbalances and eliminate the identification of race with economic function with the intention of ensuring that Malays and other indigenous groups would be full partners in all aspects of the economic life of Malaysia (Malaysia, 1971b). However, the second objective of restructuring society was translated into three sub-objectives. These were the restructuring of patterns of employment so that no single race could be closely identified with a certain employment sector; the restructuring of ownership in the corporate sector so that within a period of 20 years from 1971 Malays and other indigenous people would manage and own at least 30 per cent of the corporate sector; and finally the creation of a viable Bumiputra Commercial and

Industrial Community perhaps to be made up to 30 per cent of the whole of Malaysian entrepreneurs.

3.1 The Achievement of the NEP

Available official statistics on the achievement of the NEP targets have shown that some of the targets were met while others had discouraging results. Although statistics on the overall incidence of poverty at the beginning of the implementation of NEP are not available, the overall incidence of poverty in Malaysia declined from 20.7 per cent in 1985 to 17.1 per cent in 1990. Available statistics on the incidence of poverty in Peninsular Malaysia show that the overall incidence of poverty declined from 49.3 per cent in 1970 (Malaysia, 1989) to 15 per cent in 1990 (Malaysia, 1991a).

On the achievement of the restructuring objective, Sallih (1988) has made an important assessment. Although the incidence of poverty declined, there was a growing inequality within and between groups. In employment structure, the Bumiputras were still under-represented in the commercial and industrial sector. The Bumiputras were found to be over-represented in the unskilled and low-paid job and under-represented in the skilled and higher-level occupations. Recent data suggests that although the majority of of Bumiputra work-force was still in the lower-paid job categories, however, their share in certain high-paying professional occupations such as accountants, engineers and architects increased had from 22.2 per cent in 1985 to 29 per cent in 1990 (Malaysia, 1991a).

In the restructuring of the corporate sector, Bumiputra ownership, including trust agencies (see note 1), was estimated at 20.3 per cent in 1990. This proportion is below the minimum target of 30.0 per cent. However, the major proportion of

Bumiputra equity ownership is in the hands of trust agencies. Furthermore, the ownership of Bumiputra individuals as direct investors is only 8.2 per cent (Malaysia, 1991a) which reflects their low entrepreneurial tendency in terms of equity ownership. What is more important is the "*definite failure*" of creating a viable Bumiputra commercial and industrial community. Sallih (1988) concludes that:

"the programme of creating a Bumiputra commercial class, one of the principal objectives of the restructuring goal of NEP, was a definite failure. The present financial exposure of 1970's Bumiputra entrepreneurs threatens the healthy development of Malay capital and entrepreneurship, such that some erosion from the achievements of the wealth restructuring target has occurred" (p. 2).

The government admitted the "*limited*" progress achieved in creating a viable participation of Bumiputra in the modern sectors of the economy and listed "*the small and narrow base of their business enterprises, inadequate experience and lack of management capabilities*" as the major factors (Malaysia, 1991a p.15). In addition, the government argued that the slow-down in the economy which had affected adversely the performance of Bumiputra businesses that proved the development of the Bumiputra commercial and industrial community "*has not been placed on a viable basis*" (p.15). Furthermore, the government also claimed that the limited success of the Bumiputra businesses was "*partly due to their attitude and their inability to take full advantage of the opportunities made available to them*" (Malaysia, 1991a p.15). In short, the government appeared to suggest that their limited success was due to their lack of enterprise and entrepreneurship. This underlines the importance of the present strategy of creating a long term supply of entrepreneurs in a community which does not have a long tradition of entrepreneurship.

4.0 THE NEW DEVELOPMENT POLICY

The First Outline Perspective Plan (OPP1), covering the period 1971-1990 which had been implemented within the framework of the New Economic Policy, has come to an end. The Second Outline Perspective Plan (OPP2), covering the period 1991-2000, has been formulated based on the policy called the New Development Policy (NDP). The NDP will set out steps to enable Malaysia to become a fully developed nation by the year 2020.

While the New Development Policy continues the basic strategies of the New Economic Policy, its new dimensions will be to:

"shift the focus of the anti-poverty strategy towards eradication of hard-core poverty while at the same time reducing relative poverty; focus on employment and rapid development of an active Bumiputra Commercial and Industrial Community (BCIC) as a more effective strategy to increase the meaningful participation of Bumiputra in the modern sectors of the economy; rely more on the private sector to be involved in the restructuring objective by creating greater opportunities for its growth; and focus on human resource development as a fundamental requirement for achieving the objectives of growth and distribution" (Malaysia, 1991b p. 4)

To correct the economic imbalance, the NDP will focus on the expansion of capacities to generate income and create wealth as well as to provide the skills for the Bumiputra to effectively retain and manage wealth. Apparently, there seems to be a shift in emphasis *"towards strengthening the capacities of the Bumiputra to effectively manage, operate and own businesses rather than on achieving specific numerical targets of equity restructuring and ownership"* (Malaysia, 1991 p.4).

The restructuring of employment is to ensure that the employment pattern in the various sectors and occupations of the economy represents the ethnic composition of Malaysia. Thus, the restructuring of employment will involve the need for higher participation of Bumiputra and non-Bumiputra in the sectors in which they are now

under-represented. In the private sector, the Bumiputra are under-represented in both small and large businesses, while the non Bumiputra are under-represented in the government and agricultural sectors. It is suggested that the policy of encouraging more meaningful participation in the management of the corporate sector may be achieved by increasing the supply of high level Bumiputra manpower (Malaysia, 1991b).

To support the development process in achieving the NDP and the goal of becoming a fully developed nation by the year 2020, Malaysia has recognised the need to develop an enterprising community where *"education and training will continue to emphasize the inculcation of positive and progressive values, including good work ethics and industrial discipline"* (Malaysia, 1991b p. 170). In addition, Malaysia has recognised the critical need for creating an enterprising and entrepreneurial Bumiputra community who will venture into their own businesses and be able to effectively manage, operate and own businesses.

In summary, Malaysia has set its development priorities so as to eradicate poverty, create a Bumiputra commercial and industrial community, restructure its employment structure, and restructure ownership, control and participation in the corporate sector. In achieving the above objectives and the objective of achieving a fully industrialised country, it can therefore be concluded that Malaysia is seeking to develop an enterprising society in which its Bumiputra community are entrepreneurial. In achieving these national development priorities, education and training for developing an enterprising society and an entrepreneurial Bumiputra community are considered as one of the most important elements in the nation's human resource development strategy.

5.0 EDUCATIONAL STRUCTURE AND POLICY

The formal education system up to the pre-university level has a 6-3-2-2 pattern which shows the number of schooling years at the primary, lower secondary, upper secondary and pre-university levels. Education at the tertiary level may start immediately after upper secondary level. However, education at the university level starts at least 2 years after the upper secondary level.

Higher education includes all the universities, the MARA Institute of Technology and the Tunku Abdul Rahman College. There are six local and one international universities in Malaysia. The local universities are University of Malaya, National University (Universiti Kebangsaan Malaysia), University of Agriculture (Universiti Pertanian Malaysia), University of Science (Universiti Sains Malaysia), University of Technology (Universiti Teknologi Malaysia) and the Northern University of Malaysia (Universiti Utara Malaysia). The only international university is the International Islamic University (Universiti Islam Antarabangsa). They offer a wide range of first degree courses lasting three to four years, except for Medicine, Dentistry and Veterinary medicine courses which take longer. Masters and doctorate degrees are also awarded.

The present education system is a heritage of the nation's social, economic and political development. Prior to the coming of colonial powers to the Malay Peninsular, education was mainly non-formal and the stress was mainly on the religious teaching of spiritual knowledge and morality based on Islam. However, there was also some formal methods of teaching and the most significant was the "*pondok*" system. In this system, there seemed to be no set syllabus and the mode of teaching was "*the teacher sits near a pillar of the mosque and his students gather around him to hear his lectures*" (Yunid, 1977 p. 171). Some of these "*pondok*"

schools, though their numbers are small, continued to exist during the post independence period, but with a more structured system.

During the colonial period, the majority of the secondary schools were situated in the urban areas, thus providing easy access to secondary education for the urban population who were mostly Chinese and Europeans. Secondary education was generally available in government English schools, missionary English schools and some Chinese schools. Practically no Malay secondary schools were built until after the Second World War. On the other hand, Lee (1972) notes that there were Chinese secondary schools in Malaya and even tertiary education in the form of Nanyang University in the neighbouring state of Singapore. The University was established in 1956 to cater mostly for students from the Chinese secondary schools in Malaya and Singapore.

As the country was approaching self government in 1955 and when it eventually gained its independence in 1957, the whole education system was examined from the perspective of "*nurturing national consciousness*" and "*moulding national identity*" (EPRD, 1989, p. 2). Thus, after Malaya gained its independence on August 31, 1957, the post independence period saw a different era for the education system in Malaysia.

On gaining independence, one of the first tasks of the government was to establish a national system for all. A committee was formed to look into the matter headed by the first Minister of Education, Dato' Abdul Razak Hussein. The report of the education committee, commonly known as the "*Razak Report*", was accepted and the underlying principles were duly enacted as the Education Ordinance, 1957. It was this Ordinance that formed the foundation of the National Education Policy which had an "*orientation to a Malayan outlook*" with Malay as the National Language and

to be the main medium of instruction in all schools. English and Malay would be the compulsory subjects for all primary and English schools.

When the New Economic Policy was adopted, all government efforts, including education, were directed towards achieving the Policy. As such, a cabinet committee chaired by the Minister of Education was set up. The Cabinet Committee Report of 1979 made recommendations to achieve the following objectives more effectively.

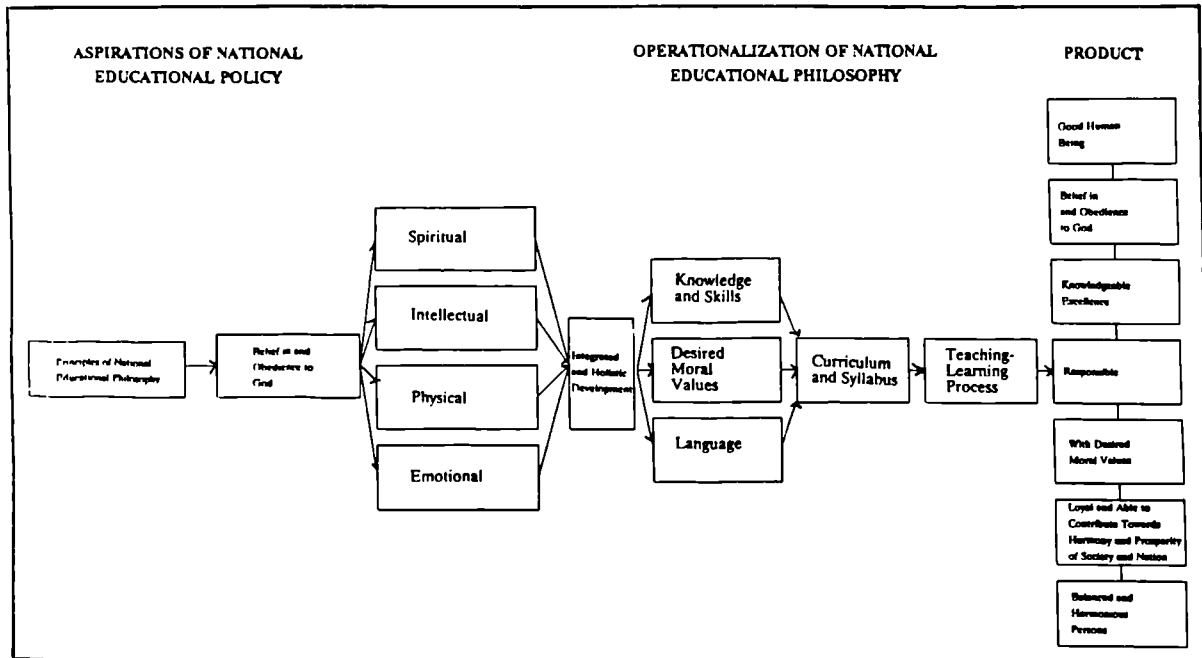
"To achieve national unity in a multi-ethnic society; to produce skilled manpower for national development; to further extend the policy of democratization of education in order to strike a balance in all aspects of education between the rural and urban area; and to mould a disciplined and morally refined Malaysia society" (EPRD, 1989 p. 5).

The emphasis of the educational programs up to 1970 were felt to be oriented toward academic development. In the nineteen eighties, however, it was felt that education should move towards the more holistic development of the individual as expressed in the National Education Policy. The underlying principles and goals of the National Education Policy and National Education Philosophy were translated into educational programmes and activities in order to achieve the following objectives:

"a) To provide pupils with the essential intellect, affective and psychomotor skills in a holistic and integrated manner so as to produce individuals who are intellectually, physically, emotionally and spiritually balanced and functionally literate. b) To inculcate and nurture national consciousness through fostering common ideals, values, aspirations and loyalties in order to mould national unity and national identity in a multi-ethnic society. c) To produce manpower with requisite skills for economic and national development. d) To inculcate in pupils desired moral values and to promote personality and aesthetic development as well as the sense of being responsible, disciplined, and progressive enabling them to contribute effectively towards nation building" (EPRD, 1989 p. 5).

The above National Educational Philosophy is diagrammatically presented as in Table 2.1 below:

Table 2.1: National Educational Philosophy



(Source: EPRD, 1989 P. 6)

Although the New Economic Policy and the New Development Policy specified the need to have a society that is enterprising and the need to create an entrepreneurial Bumiputra community, the educational philosophy in Table 2.1, does not appear to specifically emphasize these objectives. It could not be argued strongly that producing enterprising students in general and entrepreneurial Bumiputra students in particular is implicit to the following qualities of "product" (graduates): *"knowledgeable, excellence, responsible, with desired moral values, loyal and able to contribute towards harmony and prosperity of society and nation"* (EPRD, 1989 p. 6). What is more, it appears the education system was late in responding to the need for enterprise and entrepreneurship education which was not given special emphasis in the curriculum to meet national development priorities. This is evident from the statement:

"A new subject, Living Skills, which comprise elements of manipulative, entrepreneurship and family life education will eventually replace the present pre-vocational elective subjects in 1992" (EPRD, 1989 p. 24).

6.0 THE DEVELOPMENT OF HIGHER EDUCATION

The development of higher education in Malaysia falls into two main periods - pre and post New Economic Policy period. Before the New Economic Policy was implemented there was a grave imbalance in the distribution of opportunities for higher education among the races in Malaysia. The enrolment of students at the University of Malaya, the first and largest university in Malaysia during this period, gives an indication of the situation. In the academic year 1963/4 for example, the University of Malaya had a total enrolment of 1,736 students and the distribution of these students by ethnic group was as follows: 60 per cent Chinese, 16.5 per cent Indians, 20.6 per cent Malays and 2.4 per cent Others (University of Malaya, 1963; p.94). Although the Malay students were 20.6 per cent of the total enrolment, the majority of them were in Arts. During the period 1964-1970, for example, out of the total number of graduates of 2337 from the University of Malaya, there were only 119 Malays representing only 5.1 per cent (Chai, 1977).

During this period, access to higher education was related to the stream of one's education. Until 1964, Chai (1977) states that *"there were effectively only two streams in secondary education: English and Chinese"*. Of the two, English provided greater direct access to higher education within the country and abroad. There were students in the Chinese secondary schools who pursued their education in Taiwan where the medium of instruction was in Chinese. Before independence, *"traditionally, Tamil as well as Malay primary education was terminal after five or six years. While there was no demand for secondary education in Tamil, the situation was quite different in the case of Malays"* (Chai, 1977).

The above imbalance in racial representation in higher education, Chai (1977) argues, was due to the imbalance in racial representation at the secondary school level. The output of Malay medium (i.e language) students with a full Higher Secondary School Certificate in Science ranged from 1 in 1967 to 59 in 1972 compared with 921 in 1967 and 1,606 in 1972 for the English medium students. Since most of the Malays live in the rural areas their access to the English medium schools, which were mostly situated in the urban areas, was limited. Furthermore, not all English schools were residential to cater for the out of town students. Moreover, the medium of instruction in higher education was in English. Thus the frustration of the Malays in the 1960's was due to the lack of opportunities for higher education in the language medium of Malay.

There was therefore a strong pressure to develop Malay secondary schools. In the late 1950's, when the question of status of the national language was a crucial issue in national politics, the powerful Federation of Malay School Teachers Association (FMSTA) accused the government of not showing any desire to promote Malay secondary education (Roff, 1967). The government gave many reasons for not starting the Malay secondary schools. One of the most important reasons was the shortage of teachers. However, due to internal political pressure within United Malay National Organisation (UMNO), the main ruling party, as well as from outside UMNO, the Ministry of Education was indirectly forced to start Malay secondary schools. In 1957, although there were no new buildings for Malay secondary schools as such, Malay secondary classes started in the existing primary schools.

Another major development in the secondary educational structure which had implications for higher education in Malaysia, was the decision by the government

to withdraw financial assistance for Chinese medium secondary schools if they were not converted to the national system (Chai, 1977). The policy, argues Chai (1977) was to strengthen the aim of a national bilingual secondary school system, namely English and Malay. As a result, the majority of the Chinese secondary schools were converted into English medium schools. This partly explained the predominance of Chinese students in the English medium secondary schools. They formed the main source of enrolments in higher educational institutions where the medium of instruction was English. Two universities were established before the implementation of the New Economic Policy. These were the University of Malaya and University of Science Malaysia which were established in 1962 and 1969 respectively and both conducted their courses in English.

The growing number of students from the Malay medium secondary schools continued to exert pressure on the need for greater higher education opportunities and particularly also to have Malay as the medium of instruction at the higher education level. They argued that there was a discontinuity between secondary education in Malay and tertiary education in English. As a result, there was *"intense frustration and resentment among Malay medium students and it was inevitable that the greatest pressure point would be at the tertiary level where the Malay medium students were manifestly at a disadvantage vis-a-vis their peers from the English medium schools"* (Chai, 1977;p. 47).

It has been suggested that the racial riots of 1969 was partly due to ethnic inequalities in education (Koyakoti, 1981). The Malays and other indigenous groups were found to be under-represented in the higher earning jobs, particularly among professionals; and Malay entrepreneurs still played only a minimal role in the nation's productive sectors. Thus, Shah (1987) argued that the use of higher

education as an intervention strategy in the economic development of a plural society was a logical step towards achieving the New Economic Policy.

Prior to the implementation of the NEP, the higher education system continued to consist of only two universities and three colleges. These were the University of Malaya, University of Science, Technical college, College of Agriculture and MARA Institute of Technology. At these institutions the medium of instruction was English. With the introduction of the NEP, there was a rapid expansion of higher educational institutions and the need to provide greater opportunities to the Malay medium students became an urgent matter. In 1970, the National University of Malaysia was established with Malay as the medium of instruction. The first student enrolment of the University was 191 (Yin, 1980). Then, in July 1973, the University of Agriculture was formed by the union of the Faculty of Agriculture of the University of Malaya and the Agriculture College at Serdang with an enrolment of 1559 students. Although it is a university, the University of Agriculture offers both degree and diploma programmes. Like the University of Agriculture, the Technical College was raised to University status on March 14, 1972 and started with an enrolment of 973 students. It offers diploma as well as degree programmes. The college was formally known as Institut Teknologi Kebangsaan but was later renamed as Universiti Teknologi Malaysia on April 1, 1975. The University focuses on the field of Science and Technology which comprises Engineering, Architecture, Surveying, Planning, Valuation, Science and Technological Management.

In 1983 an international university was established in Malaysia. Unlike all other universities which were bound strictly by the Universities and Colleges Act, 1971, this university was formed through a "*Memorandum of Association and Articles of Association*" and was officially registered on May 10, 1983 under the name of "*International Islamic University - Malaysia*". The University is managed by a Board

of Governors which consists of "*representatives of the Governments and International Organisations who had signed the co-sponsorship treaties with the Malaysia Government*". Hence, the University is unique in its objective, management, source of finance and student body. Although the University is Islamic in character, its student body is composed of foreign and local students from all races and religions. At the same time, the University offers courses in Accountancy, Business and Law (International Islamic University, 1985).

The seventh university in Malaysia or the sixth national university is the Northern University of Malaysia. The University was established on February 14, 1984 with an enrolment of 295 students and was to pay special emphasis upon management education. Since it is a management based University, the University started offering programmes in the field of business management, accountancy, economics and public administration. In 1989, a new programme in information technology was offered.

In addition to the six national universities and an international university that now offer full time degree programmes in Malaysia, there are two colleges which offer degree or degree equivalent programmes. These are the MARA Institute of Technology and the Tunku Abdul Rahman College.

The MARA Institute of Technology has the primary objective of producing professional and sub-professional manpower to meet the national needs for qualified Bumiputras. Although it started as "*an experimental centre providing short courses in commerce and cottage industry to twenty-five English educated rural youths*" in 1956 and was named Dewan Latihan RIDA (Yap, 1980), it has expanded to be the largest higher education institution in Malaysia with an enrolment of 22,590 in 1989 (EPRD, 1989). On the other hand, Tunku Abdul Rahman College was

established in 1969 with an enrolment of 510 students. Like the MARA Institute of Technology, Tunku Abdul Rahman College has expanded its enrolment to 8163 in 1989. Both of these colleges offer professional as well as joint degree programs with foreign universities. Tunku Abdul Rahman College collaborates with the University of Campbell while MARA Institute of Technology links with Ohio University of the United States to offer degree programmes. In terms of government recognition of the programmes, the professional courses offered at these two colleges are also equivalent to most of the degree programmes.

With the exception of the International Islamic University and Tunku Abdul Rahman College, all universities in Malaysia are fully financed by the government. Although the International Islamic University and Tunku Abdul Rahman College are not dependent solely on government funds, the major source of their funds is from the government. Besides these universities and colleges, there are private profit making organisations which collaborate with universities from abroad and conduct programmes through distant learning study or joint programmes. With the joint programmes, students are required to spend about 2 years in Malaysia and the rest of their programme at the universities which have collaboration with the local organisation. One such organisation is Sunway College which runs joint programmes with some universities in the U.K. and U.S..

The above higher education institutions have experienced tremendous expansion in terms of physical development and student enrolment. The total student enrolment for the degree programmes in the local public higher education institutions had increased to nearly three fold from 21,944 in 1980 (Malaysia, 1986) to 60,030 in 1990 (Malaysia, 1991a; p. 164).

7.0 EDUCATION, ECONOMIC DEVELOPMENT AND MALAYSIA

In general there is much support for the argument that education has a major influence on economic development. The economic value of education has prompted researchers like Bowman (1966) to look at education as "*human investment revolution in economic thought*". The more recent research of Hicks (1980) and Easterlin (1981) reaffirms the significance of education in promoting economic growth in developed as well as developing countries.

How does education affect economic development? Studies by Shultz (1961) and Denison (1962) indicate that education contributes directly to national income growth by improving the skills and productive capacities of the labour force. Reviewing the findings of research in the area, Psacharopoulos and Woodhall (1985) summarise this as follows:

"the overall conclusion is clear: increased education of the labour force appears to explain a substantial part of the growth of output in both developed and developing countries" (p. 17).

Besides contributing directly to economic growth, education is also found to contribute indirectly to economic growth. After examining data for sixty-six developing countries, Marris (1982) concludes that without the support of educational investment, general investment tends to have a lesser effect on growth rates. Jamison and Lau (1982) have found similar evidence that investment in education complements investment in physical development. Education is also found to have important links with other aspects of human resource development such as health and fertility. The evidence above seems to support the argument that education contributes to economic growth.

In addition, education is also found to yield direct and indirect benefits to both individuals and society. Educated workers appear to receive higher incomes than those who are less educated; an educated worker has a higher lifetime earning. Educated workers are found to generate higher productivity and therefore make additional contributions to national income and personal income over their entire lives. In addition to its direct benefit, education also yields a set of indirect benefits such as technological innovation, social cohesion and inter-generation benefits (Haveman and Wolfe, 1984). However, education may also generate "*external costs*" besides the benefits that it has generated. In a World Bank Study, it was reported that education does not only increase national cohesion but also creates a possible disintegrating influence with a large number of educated unemployed with frustrated expectations (Psacharopoulos and Woodhall, 1985).

In summary, it would appear that, with the exception of certain "*external costs*", there is strong evidence that education is indeed an important element in the development of a nation via its contribution to economic growth and the benefits that it offers to the individual and society. These are among the important reasons why many developed as well developing countries have invested a substantial part of their public development expenditure in education. Malaysia is one of them. Since the research problems of this thesis are being investigated in the context of Malaysia, the role of education in the development of Malaysia will be discussed.

7.1 The Development Priorities and The Challenge To Higher Education

It has been shown above that Malaysia has set its development priorities through the New Economic Policy and the New Development Policy. It has also been argued that to achieve the objectives in these plans, Malaysia needs an enterprising society and an entrepreneurial Bumiputra community. In addition, there is strong evidence

that education contributes to economic growth. In order however to contribute to the achievement of the specific objectives of Malaysia, it has been argued that the education system needs to produce a substantial number of Bumiputra students who would choose an entrepreneurial career as a long term career option in order to meet the objectives of poverty eradication, restructuring of employment and the creation of an entrepreneurial community. Thus, the discussion leads to an assessment of the contribution of education to Malaysian development in the context of its New Economic Policy.

7.2 Eradication of Poverty

The eradication of poverty is one of the fundamental goals of Malaysia's development policy. To achieve this goal, Psacharopoulos and Woodhall (1985) report that the World Bank has suggested that human resource development should be the main instrument. Besides better health, nutrition and fertility reduction, education and training which are the main instruments of human development, were expected to raise output and thus the income of the individual. To achieve the objective of eradication of poverty, education was expected to provide upward mobility to the lower income groups.

Education, however, can only raise the income of the individual if there is employment. In a country that does not offer unemployment benefits, unemployment is seen as one of the most critical problems that needs to be overcome. Since education arguably will increase one's employability, it can play a major role in raising the overall income of the people and therefore reduce poverty.

The development of the labour market, as in Table 2.2, shows a mixed employment trend. The unemployment rate rose from 6.9 per cent in 1985 to a peak of 8.19 per

cent in 1988. It then declined to 6.0 per cent in 1990 and is expected to decline further to 4.5 per cent in 1995. The absolute number of unemployed increased from 414,500 in 1985 to 425,500 in 1990 but is expected to decline to 361,700 in 1995. The disparity in the proportion of the unemployed among the races remains a central issue.

Table 2.2: Estimates of Labour Force and Unemployment in Malaysia (in million)

	1985	1988	1990	1995
Labour Force	6.0391	6.6222	7.0465	8.1140
Unemployment	0.4145	0.5347	0.4255	0.3617
Unemployment Rate	6.9%	8.19%	6.0%	4.5%

(Malaysia, 1989: Mid Term Review 1986-1990, p.87 and Malaysia, 1991: Sixth Malaysia Plan 1991-1995)

Table 2.3 shows that in 1985, the Bumiputra, Chinese and the Indian labour force were 57.6 per cent, 32.9 per cent and 8.8 per cent respectively of the total labour force. However, the proportion of unemployed Bumiputra, Chinese and Indians was 61.3 per cent, 29.6 per cent, 8.6 per cent respectively of the total unemployed. Thus, among the three major races, the proportion of the unemployed Bumiputra was more than their proportion of the total labour force, which was reflected in their high unemployment rate (7.3 per cent) in 1985.

Table 2.3 also shows that in 1990, the Bumiputra, Chinese and the Indian labour force were 58.0 per cent, 32.7 per cent and 8.5 per cent respectively of the total labour force. However, the proportion of the unemployed Bumiputra, Chinese and Indians were 62.7 per cent, 28.7 per cent, 7.8 per cent respectively of the total unemployed. Again, among the three major races, the proportion of the unemployed Bumiputra was more than their proportion of the total labour force, which was

reflected in their high unemployment rate (6.9 per cent) in 1990 as opposed to those of Chinese (6.5 per cent) and Indians (5.6 per cent).

Table 2.3: Percentage of Labour Force and Employment By Ethnic Group

Year	Bumiputra	Chinese	Indians	Others
1985				
Labour Force	57.6%	32.9%	8.8%	0.7%
Unemployment	61.3%	29.6%	8.6%	0.5%
Unemployment Rate	7.3%	6.2%	6.7%	4.8%
1990				
Labour Force	58.0%	32.7%	8.5%	0.8%
Unemployment	62.9%	28.7%	7.8%	0.6%
Unemployment Rate	6.5%	5.3%	5.6%	4.9%
1995 (Estimate)				
Labour Force	58.1%	32.6%	8.6%	0.7%
Unemployment	68.9%	23.1%	7.4%	0.6%
Unemployment Rate	5.3%	3.2%	3.9%	3.7%

(Malaysia, 1991a: Sixth Malaysia Plan 1991-1995 p.36)

In 1995, it is expected that the proportion of the unemployed Bumiputra will continue to rise to 68.9 per cent, while those of the Chinese and Indians will fall to 23.1 per cent and 7.4 per cent respectively. It can be argued that if it is the government's objective to alleviate poverty among Bumiputra, then there has to be a special effort to reduce unemployment rates among them. One of the ways is by encouraging the Bumiputra to become self-employed in their own business.

There has been a sharp increase in the number of unemployed graduates from higher educational institutions. The number of unemployed graduates has risen from 1.0 per cent in 1980 to 3.6 per cent in 1987 (Malaysia, 1989). This situation, Chai (1977) suggests may pose a potential danger to the newly "*mobilized and highly*

expectant youth" (p.62). Thus, a major challenge is to provide or create employment for graduates and school leavers.

In summary, although there is evidence that education is strongly related to earnings, it appears that what is questionable is whether education, as it is, will necessarily create employment for graduates or encourage them to create their own employment. In short, to quote the words of Blaug (1987):

"the question is not to gear education to employment opportunities, which is how the problem is usually expressed, but to stop education being geared willy-nilly to employment opportunities of the type that are represented by white collar jobs in the formal sector" (p. 356).

7.3 Restructuring of Society

The second prong of the New Economic Policy, aimed at the restructuring of society, called for an even greater role for education. To achieve the restructuring objective, education was expected to play an important role in restructuring the pattern of employment, the restructuring of ownership in the corporate sector and the creation of a viable Bumiputra Commercial and Industrial Community. Thus, the success of education in achieving the restructuring objective may be seen from the perspective of how far education has contributed to achieving these three sub-objectives of restructuring. To assess the effectiveness of education in achieving the objectives is a difficult task, if not impossible, because the achievement of the objectives calls for an integrated approach of which education is only one component. To restructure society, education needs to influence the patterns of employment by providing the motivation and opportunity for horizontal as well as upward mobility. Since the Bumiputra are closely identified with primary and government services sector employment, with the non-Bumiputra are in the secondary sector, there is a need then for education to influence career orientations

among Bumiputra towards the modern secondary sector. Since education is viewed as one of the major instruments in achieving this restructuring objective, the achievement of the target will perhaps give an indication of the effectiveness of the present education system.

7.3.1 Restructuring of Employment Pattern

The structure of the employment pattern in certain sectors is still associated with race (Malaysia, 1991a). The Bumiputras' employment continues to be closely identified with the primary sector and government services, while non Bumiputra employment is mainly associated with the secondary sector (Malaysia, 1991a). Performance under the Fifth Malaysia Plan (1986-1990) indicates that the primary sector is still dominated by the Bumiputra. The share of employment of Bumiputra in agriculture in fact increased from 75 per cent in 1985 to 76.4 per cent in 1990 although the government expects it to decrease to 76.1 per cent in 1995 (Malaysia, 1991a). Since poverty is closely associated with the agricultural sector (Fields, 1980), it is not surprising that the incidence of poverty is highest among the Bumiputras.

Similarly, the government sector continues to attract more Bumiputras. The employment of Bumiputras in this sector increased from 65.7 per cent in 1985 to 65.9 per cent in 1990 (Malaysia, 1991a), in spite of the government policy of slowing down the pace of expansion in the government sector (Malaysia, 1991a). One of the reasons is perhaps due to the increase in the number of Bumiputra graduates who were on government scholarships and are required to serve the government. Another possible reason is, as suggested by Chee (1985), that the Bumiputras are more attracted to work in the government sector.

Tham (1977) suggests that encouraging entrepreneurship and self employment among the Malaysian Chinese graduates is probably not as challenging as encouraging entrepreneurship and self-employment among Bumiputras. Tham (1977) blames the system of education for "*acting as a passive influence in shaping new motivational patterns*" towards venturing into one's own business and self employment (p. 147). Tham further argues that it is problematic to motivate Bumiputra graduates to enter this new occupational pattern because of the attractiveness offered by being in the civil service. To quote Tham (1977):

"the social prestige granted to those associated with the civil service by Malays, attractive salaries in the civil service, involvement in political decision-making with Malay political elites, thus enhance their prestige, social status and economic security. What is perhaps equally attractive is the fact that the civil service is regarded as the avenue to political power" (p. 147).

Al-Attas (1968) also contends that "*prestige accorded to government service is enormous. Economically and socially the civil service provides the only opportunity for a comfortable life and rapid upward mobility*" (p. 150). In his later study Al-Attas (1972) however blames the persistence of feudalism in Malay society in explaining why Malays prefer to join "*prestigious*" government service associated with the aristocracy, rather than occupations such as business owner-managers. This conclusion is based on his findings on the occupational grading of university students in Malaysia, which Al-Attas (1972) argues, closely resemble the occupational grading in feudal times.

Tham (1977), without empirical evidence, suggests that Malay graduates from the universities and the MARA Institute of Technology are, to a large extent dependent, on government Ministries and statutory bodies for employment. Even those Bumiputra graduates who are in the private sector, Tham argues, are employees

rather than employers. Thus he concludes that essentially higher educational development is:

"associated with development of a Malay professional class as employees rather than self employed whether as specialists, consultants or entrepreneurs. The creation of a professional salaried class or enlargement of that class horizontally and vertically does not necessarily lead to the emergence of entrepreneurial spirit so long as the motivational and ideological bases which prompt its development remain political. The fact of the matter is that the traditional cultural patterns in Malay society ..have remained prominent in negating the rapid emergence of entrepreneurial or rational economic attitudes" (Tham, 1977 p.148).

In the manufacturing sector, however, the proportion of Bumiputra employed increased from 45.1 per cent in 1985 to 50.3 per cent in 1990 (Malaysia, 1991a). In the finance, insurance, real estate and business services, the proportion of Bumiputra employed decreased from 42.5 per cent in 1985 to 41.1 per cent in 1990. However, the proportion of the Chinese employed in the sector has increased slightly from 46.9 per cent to 47.4 per cent in 1990.

Table 2.4: Membership Of Registered Professional By Ethnic Group, 1990

Profession	Bumiputera	(%)	Chinese	(%)	Indian	(%)	Others	(%)	Total	(%)
Architects	231	2.0	728	3.2	12	0.2	8	1.1	979	2.4
(%)	23.6		74.4		1.2		0.8		100.0	
Accountants	627	5.3	4,524	20.0	346	6.5	77	10.3	5,574	13.8
(%)	11.2		81.2		6.2		1.4		100.0	
Engineers	7,018	59.7	11,741	51.9	1,065	19.9	342	45.6	20,166	49.8
(%)	34.8		58.2		5.3		1.7		100.0	
Dentists	406	3.5	847	3.7	396	7.4	21	2.8	1,670	4.1
(%)	24.3		50.7		23.7		1.3		100.0	
Doctors	1,951	16.6	2,430	10.7	2,410	44.9	216	28.8	7,007	17.3
(%)	27.8		34.7		34.4		3.1		100.0	
Veterinary surgeons	242	2.1	160	0.7	250	4.7	23	3.1	675	1.7
(%)	35.9		23.7		37.0		3.4		100.0	
Lawyers	705	6.0	1,575	7.0	836	15.6	37	4.9	3,153	7.8
(%)	22.4		50.0		26.5		1.2		100.0	
Surveyors	573	4.9	636	2.8	48	0.9	26	3.5	1,283	3.2
(%)	44.7		49.6		3.7		2.0		100.0	
Total	11,753	100.0	22,641	100.0	5,363	100.0	750	100.0	40,507	100.0
(%)	29.0		55.9		13.2		1.9		100.0	

(Malaysia, 1991b: The Second Outline Perspective Plan 1991-2000 p. 120)

With regard to the representation of race in professional employment, Table 2.4 reveals that the Bumiputras are under-represented in all areas of the professions. In terms of occupational categories, however, recent statistics reveal that the proportion of Bumiputra, Chinese and Indians who were registered as professional in 1990 was 29.0 per cent, 55.9 per cent and 13.2 per cent respectively. In the accountancy profession, for example, the distribution of registered professionals was 11.2 per cent Bumiputra, 81.2 per cent Chinese, 6.2 per cent Indians, and 1.4 per cent Others in 1990. In addition, since there is reason to believe that there are more Bumiputra accountants in the public sector than in the private sector or self-employed, it seems therefore safe to deduce that the number of Bumiputras in the accountancy profession who are self-employed would be relatively few.

7.3.2 Restructuring of Ownership in the Corporate Sector

One of the objectives of the New Economic Policy was that by 1990, Malaysians would own and control at least 70 per cent of the corporate sector equity capital, with the Bumiputras controlling at least 30 per cent, foreign investment 30 per cent and the rest of the Malaysians the remainder (Malaysia, 1986 p. 98).

Education which promotes enterprise and entrepreneurship is, arguably, able to influence the achievement of corporate ownership and restructuring. Ownership in the corporate sectors reflects both capital availability and entrepreneurship. The supply of equity capital depends on the level of savings in the society and the willingness and ability of individuals to take calculated risk. The willingness and the ability to take such risks for profit depends in turn upon the entrepreneurial risk taking propensity. Thus, arguably entrepreneurship is needed to mobilise savings and other sources of capital to exploit the opportunities. Education, to a certain degree, may influence the propensity to save and invest. In addition, education is

also reported to have influence on the success of the entrepreneurial undertaking (Hisrich and Brush, 1986). It can therefore be argued that education which promotes enterprise and entrepreneurship can play a role in ensuring success in the restructuring of ownership.

The results of the restructuring of ownership do not seem to meet expected targets (Malaysia, 1991a). Bumiputra individuals and trust agencies owned only 20.3 per cent, while other Malaysian residents owned 46.2 per cent, of the total paid-up equity capital in the corporate sector in 1990. The active participation of Bumiputra individuals in equity ownership is evidently limited in that only 8.2 per cent of the share capital was owned by Bumiputra individuals and the rest owned by trust agencies. The lack of active participation of Bumiputra individuals in corporate sector ownership is arguably partly due to the lack of enterprise, entrepreneurship and capital among the Bumiputra individuals.

7.3.3 Creation of A Bumiputra Commercial And Industrial Community

The objective of creating a viable Bumiputra commercial and industrial community implies the creation of Bumiputra entrepreneurs and entrepreneurial managers who are self reliant, achievement oriented, creative, determined and willing to assume calculated risk. It is their activities in the commercial and industrial contexts which will help them to form a "*viable Bumiputra commercial and industrial community*" which would survive and grow not only during boom but also during recession. Enterprising individuals may be expected to prosper not only within a friendly environment but also in a hostile and competitive international market (Malaysia, 1989). In short, the New Economic Policy seeks to create an enterprising Bumiputra commercial and industrial community which will thrive not only during good but also turbulent times and in a competitive market.

A viable Bumiputra community is expected to own and manage at least 30 per cent of the total commercial and industrial activities which cover all categories and scale of operations. Among others, these include the categories of small business owner-managers and the self-employed private professional practices. Thus, the New Economic Policy expresses the need to create enterprising individuals who will "*aspire towards success through independent efforts, usually channelled into commercial and economic endeavours*" (Gibb, 1987a). The objective, however, poses a tremendous challenge not only to the policy makers but also to those who are directly involved in education and training, for the aim is to create a long term supply of entrepreneurs in a Bumiputra community which does not have a long tradition of entrepreneurship (Chee, 1985).

8.0 THE RESPONSE TO THE CHALLENGE

As a response to the challenge of achieving the objective of creating an enterprising and entrepreneurial Bumiputra community, government agencies and higher education institutions have conducted specific programmes aimed at entrepreneurship development. These agencies and higher education institutions include MARA, the National Productivity Centre (NPC), the MARA Institute of Technology, the University of Agriculture and the Northern University of Malaysia. The entrepreneurial training programmes and entrepreneurship education do not seem however to have produced trainees with the necessary and sufficient skills and knowledge to be viable small business owner-managers. In 1986 and 1987, for example, about 24,600 and 20,200 Bumiputra individuals respectively participated in entrepreneurial training programmes conducted by training and educational institutions in Malaysia. All but a small part of this training took place outside of the higher education sector.

8.1 Enterprise and Entrepreneurship Education in Higher Education in Malaysia

Only recently has special attention been given by higher education to generate entrepreneurial students who would venture into their own business or private professional practice. Most higher education institutions in Malaysia offer courses in entrepreneurship. At present, there are at least three business schools which have centres of entrepreneurship or small business development. They are the MARA Institute of Technology, the Northern University and the University of Agriculture. None of these institutions, however, offers a major in entrepreneurship at degree level.

The MARA Institute of Technology was probably the first higher education institution to focus its attention upon generating entrepreneurial graduates with the objective "*To inculcate entrepreneurial skills among their graduates*" (Institut Teknologi MARA, 1990; p.2). To achieve this objective, the Institute was the first higher educational institution to set up a centre called the Malaysian Entrepreneurial Development Centre (MEDEC) in 1975. The centre was established to increase the number of viable Bumiputra entrepreneurs and to inculcate entrepreneurial skills among the students. Among the programmes conducted by MEDEC are: a) Entrepreneurship Development Programmes (EDP) which are intended to train and develop entrepreneurial and management skills among Bumiputra individuals who have just started their business; b) Entrepreneurship Development for Government Servants which is designed for government employees in categories B, C and D who intend to start their own business; c) Graduate Entrepreneurship Training Programmes which are designed for graduates and executives who plan to start their own business; d) Entrepreneurship Training Programmes for the Students of the Institute.

There are two programmes being offered to students at the MARA Institute of Technology. The first is a Basic Entrepreneurship course (ETR300) which is compulsory for all Diploma students of the Institute. Its main objective is to equip students with the basic principles of entrepreneurship and direct and indirectly to influence the students career orientation towards entrepreneurship as a viable long term career. The second is an extracurricular subject in entrepreneurship (KEMUSA), which began in July 1980. This has the objective of inculcating and stimulating students with entrepreneurial skills. KEMUSA is, however, not compulsory to all students of the Institute. Although, the Malaysian Entrepreneurial Development Centre was established in 1975, however, it was only after 1980 that KEMUSA course was specifically designed and offered to the students of the Institute. Besides this Institute, there are least two other universities which give attention to entrepreneurship education

The Northern University of Malaysia (Universiti Utara Malaysia), was established in 1984 to increase the number of trained managers and professionals both for self employment in professional practice, and for working as employees in the public and private sector organisations (Universiti Utara Malaysia, 1989). The stated objective of the programmes in the School of Management and Accountancy is *"to produce professional graduates who are able to shoulder responsibilities as managers, accountants, auditors or entrepreneurs"* (Universiti Utara Malaysia, 1989 p.27). The attributes expected of the graduates of the University are, among others, *"personal integrity, competence, determination, creativity and adaptability"*.

The Northern University claims to have a long and short term strategy to inculcate enterprising and entrepreneurial skills among their students. The long term strategy is through offering courses such as *"Kor Usahawan"* or *"Enterprise Corp"*, Creativity and Entrepreneurship courses. *"Enterprise corp"* and Creativity are two

extracurricular (co-curriculum) subjects which are intended to stimulate, develop and enhance enterprising tendencies among students. In addition, they are also intended to expose them to the life of being an entrepreneur. The subject is taught two-hours per week and is conducted for up to 3 years. Another entrepreneurship course is a 3 hour-per week programme offered to all students of the University but only as one of the elective subjects and is not compulsory even to business majors. The subject is generally taught in the classroom with little "hands-on" experience and exposure to entrepreneurs. However, in order to provide "hands-on" experience in running a business, a few students run stalls for profit in the students centre. The latest development in the University is the establishment of a Centre for Small Business in 1990. The Centre is expected to provide entrepreneurship education and to provide training to small business owner-managers as well as University students.

At the University of Agriculture, although entrepreneurship is expected to be inculcated among the students, particularly students of the Faculty of Economics and Management, there is no formal course on entrepreneurship which the students are required to take. For example, in the four year Bachelor of Science in Agri-Business, there is no formal entrepreneurship course offered as a requirement for Agri-Business students. There are however courses such as the Agri-Business Management course, project papers and case studies, which perhaps, are intended to inculcate entrepreneurship among the agri-business students. The establishment of a Small Business Development Centre (SBDC) as a unit in the Faculty of Economics and Management at the University was intended to develop a small business database, conduct entrepreneurial training and consultancy services. However, the Small Business Centre seems to emphasize training for small business owners and pays little attention to students. Recently, with financial support from the Prime Minister's Department, the Centre has conducted "*Entrepreneurship Education*" at selected secondary schools in the state of Selangor and Federal

Territory with the objective of stimulating entrepreneurship among school children. The participants select their own group members with a common business interest and business idea. They form a "company" which they "register" with the Centre and raise their own capital by selling "shares" to the members of the group. The services or products of their "company" are sold for profit. At the end of the term or project, the profit and loss are shared accordingly. Thus, the programme provides an insight of entrepreneurship.

Besides the MARA Institute of Technology, the Northern University of Malaysia and the University of Agriculture, other universities also conduct programmes in entrepreneurship. They do not however have Small Business or Entrepreneurship Centres which focus on entrepreneurship education. The National University of Malaysia and University of Technology, for example, have been conducting courses in entrepreneurship but have not yet set up any special centre to provide specific support for promoting entrepreneurship at the university level.

9.0 APPRAISING THE RESULTS

Appraising the effectiveness of education and training programmes in creating an enterprising community is rather difficult if not impossible. Nonetheless, recent data on education and training, and the performance of Bumiputra entrepreneurs would perhaps give an indication as to the effectiveness of education and training programmes for enterprise and entrepreneurship development.

According to Sallih (1988), the programme aimed at creating a viable Bumiputra commercial and industrial community has definitely failed. Stating "*the severity of the recession*" as the reason for the discouraging performance, the government confirms that "*the performance in creation of the Bumiputra commercial and industrial*

community, measured by selected indicators did not show encouraging results" (Malaysia, 1989 p. 73) and *"the overall impact in terms of creating a viable participation of Bumiputra in the modern sector of the economy remained limited"* (Malaysia, 1991a p.15). Furthermore, if the ability to repay loans is a measure of entrepreneurial performance, then there is reason to believe that Malaysia has yet to create a viable Bumiputra commercial and industrial community. Available data indicates that in 1986 *"the liability accruing to Bumiputra enterprises amounted to 18 per cent for loans less than M\$200,000 and 43 per cent for those above M\$500,000"* (Malaysia, 1989 p.73). Many of the Bumiputra entrepreneurs have foreclosed. In the effort to save the ailing Bumiputra businesses, the government has provided financial assistance to those whose businesses have the potential for recovery by establishing a M\$500 million fund known as the *"Entrepreneurs Rehabilitation Fund"* in 1988. Recession has been perhaps a costly learning experience for the Bumiputra entrepreneurs who lack enterprising characteristics.

Assessing some of the entrepreneurship education and training programmes in Malaysia, Chee (1985) concludes that for the large sum of money spent on these programmes *"... it is doubtful if the expenditure produced more than a thousand successful entrepreneurs"* (p. 22). In addition, Chee (1985) has suggested many reasons for the apparent failure. Firstly, there was a shortage in the supply of applicants and the selection could not be made discriminating. Chee (1985) contends that most of the potential participants would, given a choice, prefer to work for the government. Secondly, the programmes suffer from an acute shortage of experienced and qualified trainers. Chee concludes that it is doubtful that *"the new entrepreneurs can be produced en masse on short order"* and suggests that an entrepreneurial development programme for the Bumiputra community which does not have a long tradition of entrepreneurship is a long term process. Hj Din and

Gibb (1990a,b) argue that it is possible to create a long term supply of entrepreneurs provided appropriate strategies and methods are adopted.

In an assessment specifically of the entrepreneurship development programmes at MEDEC, it is suggested that in spite of their stringent scrutiny of the participants, MEDEC had not been able to generate more than 40 per cent of new start-ups among their programme participants (Che Sab et. al, 1991). A tracer study conducted by Institut Teknologi Mara (1989) also indicate that very few of MARA Institute of Technology students become self employed.

Gibb's (1987) observation on the six week programme run for 300 graduates, which was sponsored by the Public Service Department and conducted by higher education institutions and other government training agencies, is another indication of the limited results of entrepreneurship education in higher education in Malaysia.

"Fear was expressed by some that far from creating a group of graduates who were more likely to be inspired by the philosophy of independent effort and enterprise it would create a group regarded themselves as more 'elitist' and therefore more worthy of employment in public and other services. There was a danger that the programme would be seen mainly as a 'further qualification' for employment" (Gibb, 1987b p. 4-5).

Graduate unemployment is perhaps another indication of the not so successful attempt by higher education to encourage and influence students towards entrepreneurship. The issue of graduate unemployment has perhaps reached an alarming situation (Sallih and Young 1989). The share of graduate unemployment to total employment increased from 1 per cent in 1970 to 3.6 per cent in 1987. According to the Malaysian Institute of Economic Research estimate, graduate unemployment was approximately 46,000 in 1987 (Sallih and Young, 1989).

10.0 THE KEY ISSUES

Although the government has recognised the need for a Malaysian society that is enterprising and emphasized the role of education in creating a viable Bumiputra commercial and industrial community, higher education does not yet appear to have been massively responsive to this need. It was, for example, 5 years after the New Economic Policy was launched in 1971 that The MARA Institute of Technology responded by establishing the Malaysian Entrepreneurial Development Centre. And it was, not until 1980 that the Institut designed KEMUSA, an extracurricular entrepreneurship course. At the Northern University of Malaysia, only one elective course in entrepreneurship is offered to the students. And the teaching methods used are of a traditional classroom nature providing limited "*hands-on*" experience. The other two courses noted above are extracurricular courses and were not offered until 1988. At the University of Agriculture, there is no entrepreneurship course offered, at least to the business and accountancy students. None of the higher education institutions offer a major in entrepreneurship.

It is interesting however to note in Malaysia that while there are graduate surpluses in one sector, there are also graduate shortages in others (Malaysia, 1989). Even within the same sector, certain sizes of organisations seem to be demanding more graduates than others. For example, there is evidence to show that small organisations such as small businesses and professional organisations, in terms of employee size and paid up capital, have a greater capacity to absorb graduates (Sallih and Young, 1989). In addition, Sallih and Young (1989) have also found that students who are self reliant and possess enterprising characteristics tend to be more employable than others in the same field and perhaps with the same academic qualification. The above discussion leads to a conclusion that graduate

unemployment is caused by the mismatches between the sectors of the economy, organisations, and the skills that the graduates can offer.

Against this background, the issue of graduate unemployment has become a major one and has been given much attention and publicity (Sallih and Young 1989). One conclusion on the main cause of the problems is suggested by Dato' Sri Anuar Ibrahim, the Minister of Education. He sees the main cause of graduate unemployment and of the low numbers of graduates willing to be self employed in their own business as being the result of "*the gross shortcomings in the education system*" of Malaysia (The Star, June 27,1989).

The issue of developing entrepreneurs among a community which is believed to be lacking in entrepreneurship (Chee, 1985) and which places high prestige in working for the public sector (Al-Attas, 1972) is a difficult and challenging task. Entrepreneurship development is a complex process and there are a number of factors influencing it. Besides education which is considered important in entrepreneurship development (Gibb et al.,1984), there are many other factors deemed to shape student careers. A full understanding of the process of developing entrepreneurship and a career towards self employment can only be obtained by a review of the factors influencing every stage of the process.

Equally if education is considered important to the development of entrepreneurship, then there needs to be an understanding of the way that the process of learning may or may not stimulate such development. Arguably, motivating students towards entrepreneurship may not be achieved merely by the delivery of programmes aimed at inculcating the knowledge and skills necessary to run a business nor may it be achieved by purely developing interpersonal skills. The importance of creating a "*holistic*" approach to entrepreneurship education arguably

needs to be explored: and this may have major implications for the content and organisation of education. Besides the objective of developing entrepreneurship and a career aspiration towards self employment, higher education is also faced with the challenge of producing graduates who embody characteristics necessary to become successful individuals but who may not necessarily become entrepreneurs. To achieve the objectives there may be both short and long term aims. The long-term aim may be one of creating an enterprise culture in higher education and in the other communities it serves. A short term aim may be that of directly influencing the rate of self employment and small business formations by graduates and the number of such independent firms which survive (Hj. Din and Gibb, 1990a).

To achieve these aims may demand a better understanding of the difference between education for the development of enterprising and entrepreneurship behaviour and of education and training focussed on enabling an individual to start a small business.

Overall there is the key question of whether entrepreneurship education has a place in higher education and whether the aim of generating entrepreneurial graduates who aspire to be self employed is compatible with the present aim and culture of higher education. There has already been much debate on the aims of higher education (Barnett, 1990) and their academic culture (Becher, 1989). Furthermore there is the issue of whether within higher education, the business and management school is an appropriate environment through which entrepreneurship be developed?

This thesis addresses several of the issues in two broad areas.

The first is concerned with the process of developing enterprising graduates in general and entrepreneurial Bumiputra graduates in particular to meet the national development priorities of Malaysia. The second is concerned with exploring the way in which enterprising and entrepreneurship behaviour might be stimulated and enhanced through the process of learning.

11.0 CONCLUSION

The chapter has outlined the national development priorities and the challenges to higher education in generating enterprising graduates and entrepreneurial Bumiputra graduates in order to achieve the objectives of the national development policies, particularly the restructuring of employment and the creation of a Bumiputra industrial and commercial community. The challenge has been responded to by higher education and other training institutions. However, the response by higher education, arguably, has not been massive and not successful. It can be inferred (but not proven) that the failure is partly due to a lack of understanding of the key major issues of the process of enterprise and entrepreneurship development and the factors influencing it and in particular career aspiration towards self employment; and the way in which the process of learning may or may not influence, stimulate and/or enhance enterprising behaviour and entrepreneurship.

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CHAPTER THREE
LITERATURE REVIEW AND DEVELOPMENT
OF
A MODEL FOR DEVELOPING ENTERPRISE AND ENTREPRENEURSHIP

1.0 INTRODUCTION

This review of the literature on entrepreneurship seeks to develop an understanding of entrepreneurship and the factors influencing it. The factors identified will be brought together to form a meaningful framework for an understanding of the process of entrepreneurship development, its relationship to enterprising behaviour, and the influences upon it at each stage.

2.0 A REVIEW OF THE LITERATURE OF ENTREPRENEURSHIP

The purpose of this section is to identify relevant concepts and stages relating to entrepreneurship development within the major disciplines of economics, sociology and psychology with a view to understanding the factors influencing it. The concepts identified are also important to the discussion of enterprising behaviour which will be dealt with in the latter part of this chapter.

Entrepreneurship is a multifaceted phenomenon which cuts across the boundaries of many disciplines. Many economists, sociologists, psychologists, anthropologists, historians and professionals in the functional areas of business have studied entrepreneurship from the perspective of their own disciplines. The review concentrates mostly on the disciplines of economics, sociology and psychology.

2.1 Entrepreneurship in Economics

The concept of entrepreneurship may have originated from the field of economics. The term "*entrepreneur*" is credited to Richard Cantillon (circa 1730) and the word can be traced to the French word "*entreprendre*" which means "*to undertake*". According to Cantillon, entrepreneurship is self employment with uncertain return. The entrepreneur would buy products at certain prices with a view to selling them at uncertain prices.

During the eighteenth century, Baudeau (circa 1763) observed that the prosperity of the productive classes was dependent upon the competent and innovative management of entrepreneurs. He argued that leadership is necessary for effective innovation. In addition, he acknowledges the unavailability of risk. In 1776, Adam Smith wrote *The Wealth of Nations* and specified land, labour and capital as the only factors of production. However, Jean-Baptiste Say (circa 1810) takes issue with Adam Smith for not recognising the vital entrepreneurial role in the economy. What is more, he suggests, the entrepreneur is a talented manager who possesses certain desirable attributes and competencies which are required if an undertaking is to be successful. However, it was Marshall (1964) who hinted at a distinction between entrepreneurs and managers. Besides undertaking risk, the entrepreneur must retain "*his originality, and versatility and power of initiation, his perseverance, his tact..if he is to continue to be successful*" (Marshall, 1964. p. 238).

A clearer explanation, by far, of entrepreneurship is given by Schumpeter (1934) who is sometimes referred to as the father of modern entrepreneurial thought (Campbell and Wilson, 1975 p.12). It is Schumpeter who first differentiated between the terms enterprise and entrepreneurs. According to Schumpeter, the entrepreneur is the one who carries out new "*combinations*" whereas the carrying out of these new

combinations is termed "*enterprise*". He further suggests that the entrepreneur "*does not include all heads of firms or managers or industrialists who merely may operate an established business*" but is the one who carries out new combinations. Another interesting point suggested by Schumpeter is that these "*entrepreneurs*" may carry out new combinations not only in a business context but also in a social context.

Based upon Schumpeter's viewpoints, other economists have expanded this and further defined the concept of entrepreneur. Baumol (1968) clarifies the distinction between an entrepreneur and a manager. According to Baumol, the entrepreneur looks for new ideas and innovative technologies while the manager searches for solutions within a given technology and conventions. Leibenstein (1968), however, describes the entrepreneur as a "*gap filler*" and an "*input-completer*". The entrepreneur fills "*gaps*" in the market for goods and services and creates inputs when they are missing.

One of the current views of entrepreneurship in economics has been put forward by Kirzner (1979) who sees the entrepreneur as the one who perceives and seizes an opportunity that others have not seen. To Kirzner, an entrepreneur is more than an innovator. The "*entrepreneurial alertness*" of the entrepreneur makes him highly sensitive to information often overlooked by other market participants. To differentiate the tasks carried out by an entrepreneur from a manager, Kirzner suggests that an entrepreneur is an opportunity identifier but not an organisation manager. He further suggests:

"If people know that a gap needs to be filled, and that it is worthwhile to fill it, the task is no longer entrepreneurial, it can be handled by competent managers through routine production methods" (Kirzner, 1982 p. 275).

Overall, a review of the literature on entrepreneurship in the field of economics indicates that there is clear recognition of entrepreneurship being associated with an individual's risk taking and innovation and the importance of behaviours such as creativity, initiative, perseverance and flexibility, gap filling and alertness to an entrepreneur. Moreover, it is even recognised by some executives that these attributes of entrepreneurs are possessed not only among those who are successful in running their own business but also among those who are successful in a non-business undertaking.

2.2 ENTREPRENEURSHIP IN SOCIOLOGY

Sociologists have explored the issue of which population groups produce more entrepreneurs than others and why? Which groups tend to shy away from being self-employed and why? These different groups may represent different social, cultural, ethnic, gender, institutional, economic, regional and educational backgrounds. The factors and environments which produce more enterprising people are also explored. The following literature review of entrepreneurship in sociology is classified under the following headings: cultural factors; individual characteristics; socialisation; and learning experience.

2.2.1 Cultural Factors

Each society possesses a way of life or culture. Culture suggests what actions are important, right, proper and desirable. The culture of a society may influence the social climate for the emergence of entrepreneurship. Even Schumpeter (1934) emphasised the importance of an appropriate social climate to foster entrepreneurship. Like Schumpeter, Cochran (1949) highlights the importance of cultural themes and sanctions to encourage entrepreneurship. Positive attitudes

towards business and the accorded social status to entrepreneurs may indicate the perception of desirability towards entrepreneurship (Cochran, 1959; Kilby, 1971; Marris and Somerset, 1971). A society with different ethnic and religious background is likely to have different cultural values. Different cultural values may have different dominant and contradictory values (Schermerhorn et al., 1988). Two of the important cultural variables which are often suggested to have a major influence on the emergence of entrepreneurship are religion and race (Hofstede, 1991).

Presenting a social theory of change, Weber (1958) emphasises the role of religious beliefs in promoting and impeding entrepreneurship. Weber explores the influence of culture and values in generating entrepreneurship and argues that there is clear evidence that the values of Protestantism strongly motivate an individual to pursue a career in business. He contends that as these values and culture are internalised they will continue to influence behaviour towards the desirability of entrepreneurship. However, Weber's argument is not without critics (Samuelson, 1961). They have argued that the capitalistic spirit existed even before the emergence of protestantism and that it was the predominantly Catholic Cities that were the major commercial cities of Europe. In addition, it is also argued that it was Catholic bankers who were the leading financiers of that period.

McClelland (1961) seeks to associate high achievement motivation, which he termed "*n Achievement*", with religion but concludes that there is virtually no evidence that religious values per se are significant. In a study of achievement motivation levels among Protestant and Catholic groups of individuals in the United States and Germany, he finds no consistent differences of achievement motivation level. In his later work, McClelland (1987) suggests that "*it is not necessary to assume that Protestantism per se is the critical factor*", but what is important are the culture and its

values which are conducive to enterprising behaviour and entrepreneurship (p. 459). It is argued that even groups that have no connection with Christianity, such as the Jains in India (McClelland and Winter, 1969) or the Gurage in Ethiopia (McClelland, 1977), have produced disproportionately large numbers of entrepreneurs and have shown higher levels of achievement motivation.

Certain ethnic groups are readily identified with entrepreneurship. Shapero and Sokol (1982) point out that the Jews and Lebanese in America are more strongly associated with entrepreneurship than others. Other examples of entrepreneurial groups are the Ibos in Nigeria; the Antiquenos in Columbia; the Parsis in India; the Ilocanos in the Philippines and the Bataks in Indonesia. Ray (1988) suggests that Singapore is almost an entrepreneurial society apparently because the majority of the population of Singapore is Chinese. In other South East Asian countries, however, Redding (1986) observes that entrepreneurship is strikingly absent among the indigenous population.

It has been proposed that traditional values, such as obedience and loyalty, are not conducive to entrepreneurship (McClelland, 1961). Child-rearing practices, for example, differ greatly from one race to another. In some societies, such as the Ibos of Nigeria, parents stress the importance of achievement motivation and self-reliance in bringing up their children. On the other hand, the Hausa society of Nigeria stresses obedience and loyalty rather than achievement motivation and self-reliance. These, argues LeVine (1966), explain the difference of enterprising tendencies between the two groups. Supporting the argument of LeVine (1966) who studies achievement motivation in Nigeria and the success of the Ibo tribe of Nigeria, McClelland (1987) suggests the importance of the influence of parents on achievement motivation and self-reliance. He argues that:

"an Ibo male could attain high status by his own efforts and particularly by accumulating wealth. Parents, knowing this, would be likely to give their sons the kind of achievement and self-reliance training that would develop the high achievement motivation actually found among the Ibos" (McClelland, 1987 p.461).

In contrast to the Ibos, LeVine (1966) notes that the Hausa society of Nigeria which rewards obedience and loyalty rather than achievement motivation, and self-reliance scores low on Achievement. McClelland's and LeVine's argument seems to suggest that Achievement can be developed through training and education. To develop one's Achievement, it is suggested that there must be some stress on self-reliance and the provision of opportunity to set his/her own goals and exercise enterprising capabilities. At the societal level, it is also suggested that some kind of institutionalisation of an open structure, whereby people are permitted to move up the social ladder in a variety of ways, promotes entrepreneurship (McClelland, 1987).

Traditional values, according to Hagen (1962), also produce authoritarian individuals who are not suited to creative and entrepreneurial activities. These traditional values are in contrast to the modern values of self-reliance, achievement orientation and creativity. However, Lipset (1967) argues that a complete change from traditional to modern values may not be necessary. Instead, traditional values may be re-interpreted to give greater desirability towards entrepreneurship (Lipset, 1967; McClelland and Winter, 1969). In addition, since the elites are found to have potential in influencing values and norms in general (Hoselitz, 1957; Smith, 1968; Taylor, 1965) they, arguably, may act as possible avenues of influence in society by giving greater legitimacy to entrepreneurship and enterprising behaviour.

In the Western industrial economies, Waldinger et al. (1990) observe that ethnic entrepreneurship is important because *"it is one way immigrants and ethnic minorities can respond to the current restructuring"* of the economy (p. 15). It seems that ethnic

entrepreneurs utilise somewhat "*similar strategies and socio-cultural resources in the resolution of business problems*" (Boissevain et al., 1990). Ethnic minorities face more "*displacement*" factors than their indigenous counterparts. The "*displacement*" factors among others include immigration, deprivation of being employed in the traditional sectors of the economy or being fired. It is suggested that the ethnic groups that produce high numbers of entrepreneurs are "*displaced*" groups (Shapiro and Sokol, 1982).

The above phenomena is explained by Hagen (1962) who suggests that entrepreneurial behaviour among certain ethnic minorities is a means by which the disadvantaged minorities seek to alter their status quo. The work of Brenner (1987) also argues that those groups that have lost or are facing the prospect of losing social status are drawn to entrepreneurial activities. On the other hand, Harper (1985) suggests that entrepreneurship is stimulated, particularly among the minority groups, by the "*hardship and discipline*" experienced by the groups.

In the Malaysian context, there is reason to believe that there are differences in entrepreneurship among the different ethnic groups. The present Prime Minister, Mahathir Mohamed (Mohamed, 1981) underlines the situation when he contends that Malay survival depends on the spirit of enterprise and capitalism and being able to compete with other races economically. He also argues that the lack of enterprising characteristics among Malays is due to Malay cultural beliefs and attitudes. However, it is interesting to note that the findings of Mahmud's (1981) study on 73 Malay and 71 Chinese entrepreneurs, reveals no significant differences in cultural values between Malay and Chinese entrepreneurs in Malaysia. This may suggest that enterprising individuals, such as entrepreneurs, whether they are Chinese or Malays, may possess common enterprising values, in spite of race differences.

2.2.2 Individual Characteristics

Gartner (1985) suggests that work experience, entrepreneurial parents, age and education have an influence on entrepreneurship. In more recent research, Sexton and Robinson (1989) find that gender, marital status, educational background and work experience are significantly related to entrepreneurship.

The age when one starts a business is related to education and experience. A study by Ronstadt (1984a,b) suggests that there is a chronological age of beginning an entrepreneurial career. Firstly, most entrepreneurs begin their entrepreneurial career between the age of 22 and 55. Secondly, there are "*milestone years*" when one is more inclined to consider starting an entrepreneurial career. Ronstadt suggests that the milestone years are at 20, 25, 30, and 35. Thirdly, the earlier one starts an entrepreneurial career, the greater the chance of a longer length of time spent as an entrepreneur. Finally, there are three different age categories that reflect the different types of entrepreneurial careers after completion of a college education. These are a) those who begin their entrepreneurial career within a year of graduation at around their early 20's; b) After eight years from graduation and working for someone else at the age of around the late 20's to early 30's; and c) those who did not anticipate assuming an entrepreneurial career but who did so later, 11 years after graduation around their mid 30's. This seems to be the most frequent pattern. In an empirical study on successful and unsuccessful entrepreneurs, it is reported that successful entrepreneurs tend to be younger (Sexton and Van Auken, 1982).

Most of the research on entrepreneurship is focussed on male entrepreneurs. However, there is an increasing interest in female entrepreneurship (Hisrich, 1986; Bowen and Hisrich, 1986). Hisrich and Brush (1985), in their study on women and

minority entrepreneurs, suggest that the number of self-employed women has increased by 35 percent between 1977 and 1982.

Interestingly, however, research suggests that both male and female entrepreneurs have more similarities than differences in their core attributes and background. While overall core attributes are very similar, in some respects, women entrepreneurs are said to be different in their motivations, business skill levels, and occupational backgrounds than male entrepreneurs (Hisrich and Brush, 1986). The major differences between male and female entrepreneurs are summarised in Table 3.1:

Table 3.1: Major Differences Between Male and Female Entrepreneurs

<i>Characteristic</i>	<i>Male Entrepreneurs</i>	<i>Female Entrepreneurs</i>
Personality characteristics	Opinionated and persuasive Goal-oriented Innovative and idealistic High level of self-confidence Enthusiastic and energetic Must be own boss	Flexible and tolerant Goal-oriented Creative and realistic Medium level of self-confidence Enthusiastic and energetic Ability to deal with the social and economic environment
Background	Age when starting venture 25–35 Father was self-employed College educated—degree in business or technical area (usually engineering) Firstborn child	Age when starting venture 35–45 Father was self-employed College educated—degree in liberal arts Firstborn child
Support groups	Friends: professional acquaintances (lawyers, accountants) Business associates Spouse	Close friends Spouse Family Women's professional groups Trade associations

(Source: Hisrich and Peters, 1989 p. 66-67)

2.2.3 Learning Experience

Formal and informal learning experience is argued as contributing to the entrepreneurial "*right stuff*" (Bird, 1989 p.58). Hence it is not surprising that the Van de Ven et al. (1984) study concludes that entrepreneurial success is related, among other factors, to education and experience.

Some writers suggest that formal education helps entrepreneurial success (Robinett, 1985; Ronstadt, 1985), while others hold that formal education impedes entrepreneurial drive by reducing curiosity, vision and the willingness to take risk (Fallows, 1985; Shapero, 1980). Stuart and Abetti's study (1990) reveals that advanced education beyond the bachelors degree does not help and is negatively related to new venture early performance. Perhaps this reflects the system of higher education, in a particular country. Ronstadt (1984a) claims that the present education system in the U.S. seems to foster conformity and a low tolerance of ambiguity and thus impedes entrepreneurship which demands creative vision and a high tolerance of ambiguity.

Many studies seem to suggest that entrepreneurs are well educated, but not as well educated as managers. A study by Brockhaus and Nord (1979) suggests that entrepreneurs have an average of 13.6 years of education while managers have an average of 15.5 years. Another study by Kent et al. (1982) shows that there are more managers than entrepreneurs with one-to-four years of college and with more continuous management education. However, it is also found that more entrepreneurs than managers have more than four years of college. The authors argue that this may be due to the inclusion of self employed professionals who are obviously highly qualified. Another study by Sexton and Van Auken (1982) of 40 successful and 40 unsuccessful entrepreneurs finds that the successful entrepreneurs have more formal education than the unsuccessful group. In a recent study, Hay and Ross (1989) argue that education is a major distinguishing factor of the more successful entrepreneurs from the unsuccessful ones.

In a case study of the Malaysian small business nursery schemes, Moon (1989) reveals that the percentage of participating entrepreneurs having a college or university education accounts for 17.8 per cent. The study also indicates that the

level of formal education of entrepreneurs is generally higher than that of the general public. The importance of formal education is recognised as serving as a strong moderator on the attitudes which influence entrepreneurial behaviour and the chance of entrepreneurial success (Moon, 1989).

On the importance of an entrepreneurship course or related courses to business start-ups, recent research suggests that the more courses in entrepreneurship an individual takes, the higher the likelihood that the individual will start a business (Shierer et al., 1985). In addition, another study reveals that students majoring in entrepreneurship differ in important ways from regular business majors and non-business majors (Sexton and Bowman, 1984). Entrepreneurship students, they argue, tend to be less conforming, more risk-taking, more welcome to change, more impersonal and have greater social adroitness, greater need for autonomy and less need for reassurance than other students. These characteristics are perhaps similar to those of entrepreneurs.

Work experience, particularly a thorough operating knowledge of the business an individual intends to start, is important in determining the success of the business venture (Timmons, 1976). The work experiences considered important are technical or market experience, management experience and entrepreneurial experience. Experience within the industry or market will provide the potential entrepreneur with key competencies and inside information required to recognise opportunities and assess the risk involved. Ronstadt (1984a) suggests that lack of experience seems to be related to the shortening of an entrepreneur's career.

Although management is said to be one of the major reasons for business failure, Ronstadt (1984a) argues that "*managerial know-how may be the least important form of experience*" (p. 105). Since most new ventures stay small, he argues, perhaps what

the entrepreneurs need is more self-management than organisational management. Perhaps the most important experience for success in entrepreneurship is entrepreneurial experience. A recent study by Stuart and Abetti (1990) suggests that previous entrepreneurial experience is by far the most important factor in the early performance of new ventures. The number of previous new venture involvements and the level of the management role played in such ventures, they argue, are significantly related to performance.

What is important is that relevant work experience is claimed to:

"contribute to the development of skills, abilities, and competencies important in entrepreneurship as well as to the values, needs, incentives, and drives that energise the entrepreneurial idea" (Bird, 1989 p. 57).

The question, however, arises as to what are the relevant work experiences that contribute to the development of entrepreneurial behaviour? Gibb (1987a) suggests that the experience of working alongside small business owner-managers contributes to the development of enterprising behaviour. However, it appears that there is very little research that specifically deals with identifying the types of work experience in different types of organisation which contribute to the development of enterprising and entrepreneurial behaviour. For example, is it the experience of running an organisation which contributes to the development of entrepreneurial behaviour or working alongside an entrepreneurial role model, such as an owner of a small private professional practice which contributes to the development of entrepreneurial behaviour?

2.2.4 Socialisation

Social learning theory recognises the importance of socialisation and provides an explanation for entrepreneurship. Those whose parents or relatives are involved in business, it is argued, socialise in a way which nurture their entrepreneurial tendencies.

Several studies suggest that family and friends seem to serve as role models for aspiring entrepreneurs. In a study of small newly established firms, Litvak and Maule (1971) reveal that successful high-technology entrepreneurs have fathers who are owner-managers. Similarly, Hisrich and Brush's (1985) study on women entrepreneurs discovered that the majority of these had fathers who were self-employed. In another study, Ronstadt (1984b) finds that practising entrepreneurs are more likely to have entrepreneurial fathers than ex-entrepreneurs and "*serious non-starters*". In a more recent study, Blythe et al. (1989) conclude that an entrepreneurial family background is a major factor influencing entry into business.

In Malaysia, in spite of the small amount of research on entrepreneurship, there is evidence to suggest the importance of role models to the entrepreneurial career. Tham (1977) suggests that the lack of entrepreneurship among Malays is due to the lack of role models among Malays which they can emulate, be motivated by and learn from. Charlesworth (1974) finds that 21 per cent of Malay entrepreneurs have fathers who are in business. Hashim (1983), on the other hand, reports that almost 50 per cent of his sample of Malay entrepreneurs in the state of Kelantan have parents who are self-employed in business. In a more recent study, Mohamed (1988) finds that there is a significant relationship between an entrepreneurial career and the family's business background. Chee's (1985) work on Malaysian entrepreneurs suggest that business socialisation does nurture entrepreneurial tendencies.

It has been suggested that relevant previous work experience may contribute to the development of entrepreneurial behaviour. It has been revealed that working alongside a small business owner manager, who may be the individual's parent, stimulates and enhances the individual's enterprising behaviour. It has also been generally accepted that the entrepreneurial parent as role model has a strong influence on an individual's entry into business. However, the literature does not make distinctions between those with entrepreneur parent backgrounds who work alongside their parent and those who do not have such experience and therefore can be said to be influenced only by the role models.

Entrepreneurial networks are attempts to place the entrepreneur within a social context (Low and MacMillan, 1988). Birley (1989) suggests that an entrepreneurial network comprises of two parts - the formal, such as banks, accountants and lawyers, and the informal such as family, friends and business contacts. It is the informal contacts, mainly business contacts, which are seen to be the most helpful in assembling the elements of business (Birley, 1985). What is crucial for the successful launch of a new firm is, however, the significance of the social network. Although research shows that entrepreneurs do not differ from established business managers or those who are not in business in their complexity of their network, Aldrich and Zimmer (1986) suggest that a strong informal or social network is essential for a successful business start-up. However, Aldrich and Zimmer note that:

"Social networks build slowly, and thus it could be years before an area reaches a density threshold where reachability and entrepreneurship is facilitated" (Aldrich and Zimmer, 1986 p. 18).

Aldrich and Zimmer make an important conclusion on the importance of social-networks in entrepreneurship and their implications for research.

"Entrepreneurship is a social role, embedded in a social context. Investigators cannot treat entrepreneurs in isolation as autonomous decision makers or lump them together with others with similar social characteristics, without regard to context" ((Aldrich and Zimmer, 1986 p. 20).

From the sociological point of view, it has been suggested an individual is influenced by his or her social environment. It has been shown that there is some evidence that religion or race is related to entrepreneurship. There is some evidence also, although not absolutely conclusive, to suggest that education, age and gender are related to entrepreneurship. On the other hand, most research suggests that an entrepreneurial family background and previous entrepreneurial experience are major factors influencing an individual to venture into his or her own business. The literature does not, however, explore whether an individual who is not working alongside his/her entrepreneurial parent is more entrepreneurial than one who works alongside his/her entrepreneurial parents or other entrepreneurial role models.

2.3 ENTREPRENEURSHIP IN PSYCHOLOGY

So far the discussion has covered entrepreneurship in economics and sociology. It seems difficult however to make any sharp division between psychological and sociological theories of entrepreneurship. Most of the entrepreneurship literature in psychology seems to touch upon some socio-economic and even cultural factors. In discussing the psychology of entrepreneurs, Brockhaus and Horwitz (1986), for example, suggest that the decision to become an entrepreneur emerges from psychological influences upon the individual, the effects of previous experience and personal characteristics. It is perhaps the works of McClelland (1961) and Collins et al. (1964) that have made the major impact upon personality-based entrepreneurship research.

2.3.1 The Need for achievement

McClelland (1961) argues that the need for achievement is culturally acquired and is an important psychological characteristic of an entrepreneur. According to McClelland's (1961) theory of need-achievement, an individual with a high nAch (need for achievement) has a strong tendency to choose and persist at tasks that involve a standard of excellence; tasks that are challenging and require personal skill and responsibility for success; and having a desire for feedback. In addition, he suggests that it is the need for achievement that drives an individual to become an entrepreneur.

In his later work, McClelland (1987) claims that the needs and motives to achieve are found as predicting an individual's preferences for moderately risky or challenging task, whether during work or play. The motive to achieve is argued as predicting one's preference for personal responsibility in a challenging task. In addition, he suggests that those who have a high need for achievement stress greater value on performance feedback. McClelland (1987) also argues that those with a high need for achievement are more innovative. They are the ones who seek to "*do things better*" by seeking to answer such questions as: "*How can I get the same result with less work?*" and "*How can the same amount of work produce a bigger result?*" (p. 249).

While the results of research seem to indicate that entrepreneurs are high achievers, the same has also been found among successful executives (Brockhaus and Horwitz, 1986). A similar conclusion is also made in a comparative study of founder and non-founder managers in small business (Begley and Boyd, 1986) and high-technology entrepreneurs (Komives, 1972). Perhaps, the best conclusion regarding the outcome of achievement motivation is suggested by Bird (1989):

"Thus, while achievement motivation tells us about what drives entrepreneurs, it says little about who will become one, what type of career or venture they will create for themselves, or how profitable their ventures will be" (p. 80).

2.3.2 Need for autonomy

The need for autonomy or "*internal locus of control*" is another characteristic that has been attributed to entrepreneurs. Internal locus of control emerges from the theory of personal control belief forwarded by Rotter (1966) who defines internal control as follows:

"If the person perceives that the event is contingent upon his own behaviour or his own relatively permanent characteristics, we have termed this a belief in internal control" (p. 1).

On the other hand, one is said to be externally controlled if the event is:

"typically perceived as the result of luck, chance, fate, as under the control of powerful others, or as unpredictable because of the great complexity of the forces surrounding him" (Rotter, 1966. p. 1).

Rotter (1966) hypothesizes that 'internal control' individuals would be more likely to strive for achievement than would 'external control' individuals. Other studies have supported this hypothesis (Gurin et al., 1969). In addition, Berlew (1975), cited in Brockhaus and Horwitz (1986) suggests that successful entrepreneurs perform best in situations where they have personal responsibility for their results and tend to be internally rather than externally controlled.

In a study to determine what characterises students who intend to become business owners, Borland (1974) finds significant differences in internal control between students who intend to start a company and those who do not. In addition, Borland suggests internal control is a better predictor of entrepreneurial intention than achievement motivation. In another recent study of entrepreneurial predisposition

among students, Sexton and Bowman (1984) find that entrepreneurship majors and business majors exhibit very similar scores on internal control. These students also exhibit higher scores on the internal control scale than do students who are non business majors.

Not all studies, however, show positive findings. Brockhaus and Nord (1979), for example, report that locus-of-control beliefs do not distinguish successful entrepreneurs from successful managers. Perhaps this has led Brockhaus (1982) to conclude that "*internal belief and the associated greater effort would seem to hold true for both successful entrepreneurs and successful managers*" (p. 45). These findings support the argument that enterprising individuals such as successful entrepreneurs and successful managers seem to possess similar characteristics, such as high internal control.

2.3.3 Risk taking

Another psychological characteristic often associated with entrepreneurs is that of a high risk taking propensity. Entrepreneurs are often perceived by others, who are more risk averse, as risk seeking individuals. However, research suggests that entrepreneurs take calculated risk after assessing the situation based on information, perhaps not available or appreciated by others. Risk involves a psychological assessment of the chances of success or failure for any given task or action plan (Bird, 1989). Bird also suggests that entrepreneurs may face uncertainty in matters: financial; social and familial; emotional and physical; career or future employability; and organisational probabilities of growth or decline. It is suggested that risk emerges from three sources (MacCrimmon and Wehrung, 1986). The first is lack of control due to natural forces, the influence of other people, and the existence of sufficient resources. The second is lack of information or incomplete or

unreliable information. The third is the lack of time to make a decision on the basis of information available.

Studies of risk taking in entrepreneurship, however, suggest no conclusive evidence on the risk preferences of entrepreneurs. McClelland (1961) suggests that a person with a high nAch have a moderate risk taking propensity. Atkinson (1957) proposes that a subjective probability of success of 50 percent is moderate and thus will generate the most achievement motivation. There have been a number of studies which support the hypothesis that risk taking is the major factor in entrepreneurship (Welsh and White, 1981; Colton and Udell, 1976). On the other hand, the findings of other studies do not seem to support this hypothesis (Brockhaus, 1980; Sexton and Bowman, 1983). Table 3.2 below summarizes the results of some of the risk taking research.

Table 3.2: Some Major Research Results Regarding Risk Taking

<i>Researcher</i>	<i>Instrument</i>	<i>Results</i>
Meyer, Walker, and Litwin (1966)		Entrepreneurial group showed a preference for intermediate risk
Hull, Bosley, and Udell (1980)	Four-item risk questionnaire	Entrepreneurs scored significantly different
Brockhaus (1980)	Kogan-Wallach CDQ	Risk-taking propensity failed to distinguish entrepreneurs from managers
Brockhaus (1980a)	Kogan-Wallach CDQ	Risk-taking propensity failed to distinguish between successful and unsuccessful entrepreneurs
Sexton et al. (1982)	Kogan-Wallach CDQ	Entrepreneurs did not score significantly different
Sexton and Bowman (1983)	Kogan-Wallach CDQ	Potential entrepreneurs scored significantly different
Sexton and Bowman (1983)	PRF-E	Potential entrepreneurs scored significantly lower on harm avoidance
Sexton and Bowman (1983)	JPI	Potential entrepreneurs scored significantly higher on risk-taking

(Sources: Sexton and Bowman, 1984 p.517)

Another element that is related to risk is tolerance of uncertain situations. Timmons (1976) suggests that entrepreneurs tend to have a greater tolerance of ambiguity. In a study of prospective entrepreneurs, Sexton and Bowman (1984) report that prospective entrepreneurs are more tolerant of ambiguous situations than those with other career intentions. In their recent study on the psychological characteristics of female entrepreneurs, managers, entrepreneurship students and business students, Sexton and Bowman (1986), using the modified JPI/PRF-E instrument, concluded that entrepreneurs and entrepreneurship students score significantly higher on risk taking than managers and business students. However, the instrument, which is claimed to be valid and reliable in the research, seems to have a cultural bias when it is used to test Malaysian, Brazilian, and French businessmen and businesswomen (Sexton, 1990, note 1).

2.3.4 Creativity

The importance of creativity in entrepreneurship was pointed out by Schumpeter (1934). More recently, Carland et al. (1984) extends Schumpeter's idea of entrepreneurial creativity to include the introduction of new goods; the introduction of new methods of production; the opening of new markets; the opening of new supply; and the reorganising industry or "*turn-around*" of a business organisation. Creativity is said to be an abstract and general process of bringing something new into existence through discovery, invention and innovation, often through imaginative skills (Bird, 1989).

Studies on entrepreneurial creativity suggest that entrepreneurs seem to need and value creative expression. Schein (1977), for example, finds that creative needs among college graduates are related to entrepreneurial careers and to expression of willingness to "*create something new which can be clearly identified with the individual*"

(p. 55). In a study on personality differences among college graduates, Hull et al. (1980) reports that those with some ownership in business are more creative than those with no ownership. In another study on a sample of college students, Sexton and Bowman (1984) finds that potential entrepreneurs are more innovative than those students who are majoring in non business.

In a study on entrepreneurs, there is evidence to show that creative entrepreneurs behave differently from the non-creative entrepreneurs. Silver (1983) reports that creative entrepreneurs are more likely to be able to identify a problem than the non-creative entrepreneurs. In addition, creative entrepreneurs are reported to be involved in start-ups in more diverse areas.

The literature review of entrepreneurship in psychology shows that there is no conclusive evidence that each of the psychological characteristics discussed above differentiate an entrepreneur from the non-entrepreneur. However, evidence seems to suggest that most, if not all, of the psychological characteristics are related to successful individuals and distinguish them from the normal population. For example, high achievers have been found in entrepreneurs as well as successful executives (Brockhaus and Horwitz, 1986); internal locus of control is associated with both successful entrepreneurs and successful managers (Brockhaus, 1982); creativity is said to be associated with successful individuals in business and non business settings (Simon, 1985). If successful individuals are represented by those who are in business - entrepreneurs and intrapreneurs or non business - "*public entrepreneurs*" (Aharoni, 1985), evidence appears to suggest that both entrepreneurial (those who are enterprising in the business setting) and enterprising individuals (those who are enterprising but not necessarily in the business setting) share some common psychological characteristics.

3.0 THE RELATIONSHIPS BETWEEN ENTREPRENEURSHIP AND ENTERPRISING BEHAVIOUR

The literature review of entrepreneurship in economics suggests that an entrepreneur is one who is an opportunity seeking individual who demonstrates enterprising behaviour, such as "*originality versatility power of initiation perseverance*" and "*alertness*". These are, among others, the desirable characteristics which contribute to his/her successful undertaking not only in business but also in non business contexts. On the other hand, sociologists generally agree that entrepreneurial characteristics which are generally expressed by an individual's behaviour are the result of the person's interaction with his/her social environment. The characteristics may be developed through relevant learning experiences which may include formal learning through education and informal learning through socialisation at work or outside work.

The literature review of entrepreneurship suggests that the psychological characteristics of entrepreneurs are found in both successful entrepreneurs and successful individuals who are not necessarily entrepreneurs. For example, the characteristics of entrepreneurs seem to be similar to those of successful managers (Woodruffe, 1990) and enterprising individuals (Caird, 1990a;1990b). Hence the literature appears to support the view of Gibb (1987a) and Scott (1988) who suggest that entrepreneurs and enterprising individuals share similar characteristics.

There is other strong evidence which supports the above view. The work of Mansfield et al. (1987) reports that McBer conducted over 150 competency studies on a wide variety of jobs in many different organisations. It concludes that the competencies of successful entrepreneurs "*have been found in persons who are not entrepreneurs*" (Mansfield et al., 1987 p.237). Besides suggesting that entrepreneurial

and enterprising individuals share some common characteristics, they further suggest that:

"Though no individual competency is demonstrated only by entrepreneurs, the particular combination of competencies associated with successful entrepreneurship may be different from the combination of competencies required in any other job" (p. 237)

Taylor (1975) and Maddi (1980) report that creative individuals such as enterprising professionals seem to share some common characteristics. Henry (1991) also suggests that creative individuals have characteristics almost similar to those of enterprising and entrepreneurial individuals which include greater tolerance for ambiguity, imagination, independence, *"intrinsically motivated and work hard"* (p. 6). Although there are similarities in the characteristics of creative individuals, innovators, entrepreneurs and intrapreneurs, Whitfield (1975), cited in Henry (1991), offers a useful distinction.

"Creative people are usually seen as people who generate ideas, innovators as those who take an idea and develop it into something tangible, and entrepreneurs as those who take the product to market or implement the practice. Intrapreneurs fulfil a similar role to entrepreneurs within large organisations" (p. 6).

The literature review and the distinction offered by Whitfield (1975) suggests that although creative individuals share some common characteristics of entrepreneurs and enterprising individuals, entrepreneurs take further steps by taking *"the product to the market or implement the practice"* in a business context, while enterprising individuals take similar steps as those of entrepreneurs but in a non business context.

The work of Hornaday (1982) and others (Sexton and Bowman, 1984; 1986; Begley and Boyd, 1986; Taylor, 1975; Maddi, 1980; Caird, 1990a) suggest that the common characteristics of enterprising and entrepreneurial individuals may be classified into five tendencies, namely: the need for achievement, the need for autonomy, a

creative tendency, calculated risk taking and drive and determination. These tendencies are, however, not clear cut, not necessarily mutually exclusive and are sometimes related. For example, the characteristics of versatility, dynamism, leadership are arguably related to one or more of the above common tendencies (Hornaday, 1982). It is also interesting to note that although the ability to take calculated risk is often argued as being unique to entrepreneurial individuals, it is however equally applicable to enterprising individuals. Like entrepreneurs, while undertaking a non business project, enterprising individuals may face uncertainty in the form of financial risk, social and familial risk, emotional and physical risk, career risk and "*organisational*" risk (Bird, 1989). The above common underlying characteristics of a successful person are argued as being clusters of behaviour (Dulewicz, 1989). Thus, it can be concluded that enterprising and entrepreneurial individuals share common characteristics reflected by their common behaviour but exercise them in different contexts. Entrepreneurial individuals generally exercise their enterprising behaviour in their career as entrepreneurs, while enterprising individuals exercise the enterprising behaviour in a non business context.

The above literature review and the discussion on the relationship between enterprising behaviour and entrepreneurs has also indicated the key influences on enterprising behaviour. These are: cultural factors, which include religion and race; individual characteristics, such as gender and age; learning experience, which include formal and informal; and socialisation.

A key question however raised by the above argument is why do individuals with enterprising behaviour differ in their choice of career? To answer this question, the following section will discuss the key elements that link an enterprising individual to an entrepreneurial career.

3.1 The Link Between Enterprising Behaviour and Entrepreneurial Career

It has been argued earlier that enterprising individuals are creative and able to generate ideas. It has also been argued that the difference between enterprising individuals and entrepreneurs is that the latter take further steps by converting the idea into a good business idea. On the other hand, enterprising individuals take similar steps but in a non business context. The importance of having a good business idea has been emphasized in Scott and Twomey's (1988) influential model on entrepreneurial career aspirations. Their empirical evidence suggests that:

"Having a business idea is both an important intervening variable for predisposing and triggering factors and an independent variable. Predisposing and triggering factors (except parental role), are strongly related to having a business idea. For many people the absence of a good idea may be all that prevents them from embarking on an entrepreneurial career" (Scott and Twomey, 1988 p. 11).

Having a good business idea in business start-ups has also been highlighted by Vesper (1980) and Gibb and Ritchie (1982).

Overall, it has been shown that both enterprising individuals and entrepreneurs are creative individuals who have ideas. These ideas need not necessarily be business ideas. However, it has been found that having a business idea has been shown as one of the most, if not most, important factors influencing an individual's career towards entrepreneurship. It can be hypothesized that the link between enterprising behaviour and an entrepreneurial career is having a good business idea. Although having a business idea is crucial to a career aspirations towards entrepreneurship, there are other career decision factors that influence an individual's career.

4.0 CAREER DECISION FACTORS

This section reviews some of the major factors influencing career decisions, the factors which precipitate an individual's career and finally the factors which facilitate the person's entry into self employment. The review also covers major models on career choice in entrepreneurship as a step toward proposing a model on enterprise and entrepreneurship development.

Career has been defined as "*the individually perceived sequence of attitudes and behaviours associated with work-related experiences and activities over the span of the person's life*" (Hall, 1976 p.4). Schein (1977) looks at careers as a set of stages or paths through time which reflect on an individual's need, motives, and aspirations in relation to work and the "*society's expectations of what kind of activities will result in monetary and status rewards for career occupant*"(p.52). These lead us to the factors which precipitate an individual's career.

4.1 Career Precipitating Stage

In general, the career decisions of normally developing people, according to Ginzberg (1951) and Super (1953), evolve through a series of events in a predictable sequence. Other writers, such as Blau and Duncan (1967), and Holland (1959) view vocational behaviour as being situationally bound which later precipitates into a career. Thus, career development is viewed in the context of situational determinants, such as social class membership, economic opportunities, and the organisation of the world of work. The variables such as race, father's occupation, sex, marital status, family income, place of residence, family status and other background variables affect opportunities as well as training and preparation (Blau and Duncan, 1967). Blau and Duncan also suggest that a person's training and early

experience are more important than family status in determining career precipitation and occupational entry.

Besides personal background and familial factors, many writers agree that there are other "*critical agents*" which influence an individual's career. Among the important "*critical agents*" are the adult role models available during youth and adolescence particularly during the age range from 10 to 24 years (Super, 1963). It is during this period that educational and vocational decisions are made which affect a person's job entry and choice of occupation. The effect of key persons on an individual's career is also reported in several studies (Tinsley and Faunce, 1980; Rooney, 1983), in particular, the effect of parents and teachers on an individual's career choice (Sewell and Hauser, 1975).

An individual's choice of an occupation also depends on the occupational values that occupations offer (Rosenberg, 1957). Among the most extensive studies of occupational values is one reported by Rosenberg (1957). In the study, it is found that three basic values are expressed:

"working with people in a helping manner; earning a large amount of money, social status and prestige; and having the opportunity to be creative and use special talents" (Osipow, 1973).

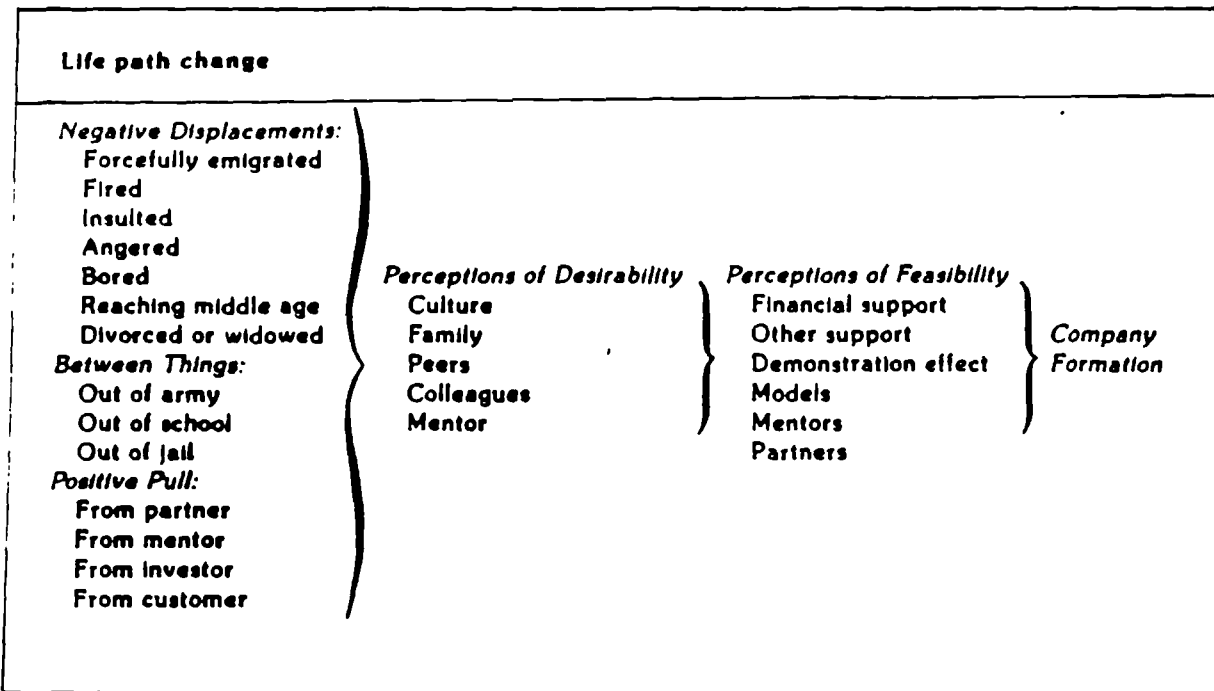
A career is pursued not just to earn money but also as an indicator of social class and reflecting one's life chances and life-styles (Joseph, 1989). Joseph also contends that one's role in life is the result of an individual's socialisation. In a study carried out by Scott (1986) to determine the perceived organisational values among higher education graduates, it is reported that small organisations were perceived by higher education graduates to offer greater opportunity to be creative, free from

supervision, and the opportunity to take responsibility not readily possible in other sizes of organisation.

The above discussion on career precipitating factors in general has recognised the importance of situational determinants, individual characteristics, familial factors, the occupational value of the organisation of work and the influence of critical agents on career decisions. The discussion that follows leads us to the specific factors that precipitates an individual's career into entrepreneurship.

Although there are a number of models which recognised the importance of career precipitating factors that influence an individual's career choice towards new venture creation or entrepreneurship (Shapero and Sokol, 1982; Gartner, 1985; Greenberger and Sexton, 1988), there are only a few which have been tested (Scott and Twomey, 1988). Among the influential models on entrepreneurship career which convincingly discuss entrepreneurial career precipitating events are Shapero and Sokol's "*entrepreneurial career event*" (Shapero and Sokol, 1982); and Scott and Twomey's (1988) model concerning the long term supply of entrepreneurs. In explaining "*life path*" changes toward company formation, Shapero and Sokol (1982) suggest a model embodying social and situational variables to explain company formation. The authors argue that societal perceptions of desirability and of feasibility towards entrepreneurship determine one's action. These perceptions are the outcomes of cultural as well as social environments and the support obtained. The model which is labelled "*entrepreneurial event formation*" is presented in Table 3.3:

Table 3.3 Entrepreneurial Event Formation

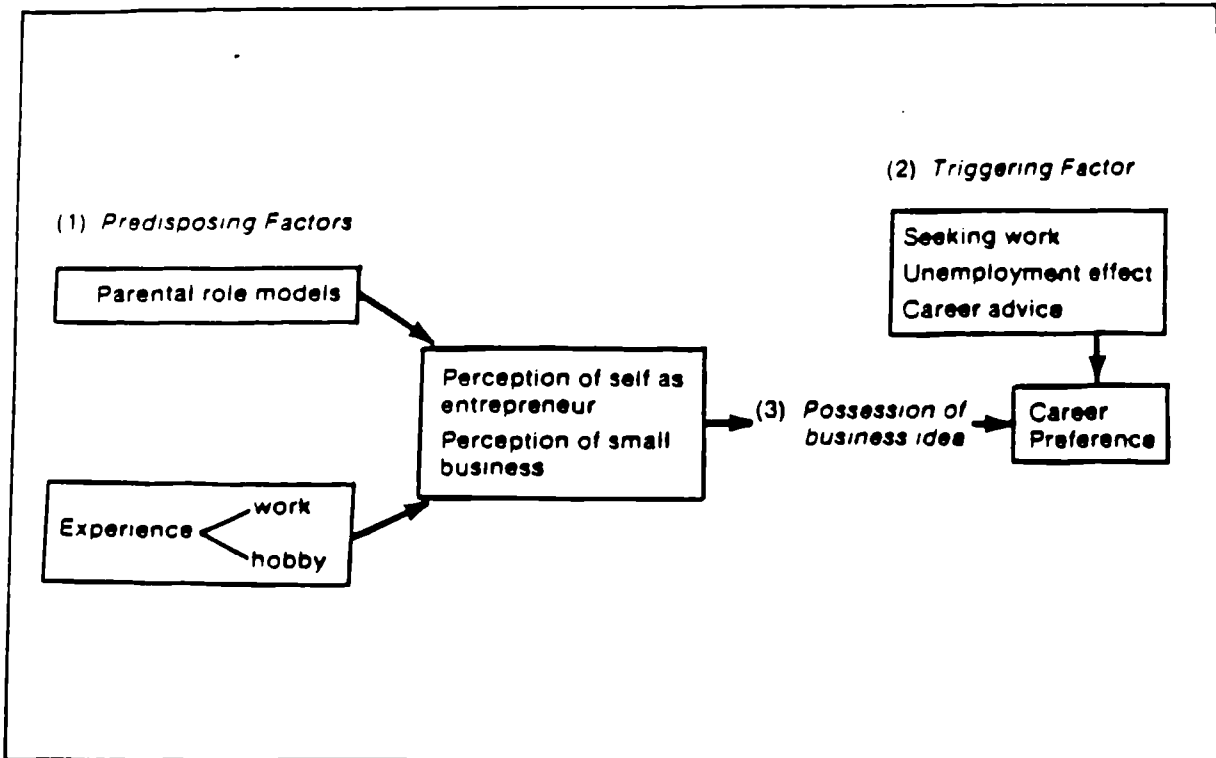


(Source: Shapero and Sokol, 1982. p. 83)

Discussing the career precipitating factors, the authors highlight the importance of "displacement factors" on an individual's career in starting a business (Table 3.3). The push factors or negative displacements occur when a person is forced out of work, voluntarily or otherwise. These may be the result of job dismissal or lay-off; discontent with the present job or employer; or forced emigration. They suggest that negative displacements precipitate far more company formations than positive pulls. However, it is suggested that it is the combination of both negative and positive pulls that accounts for most company formations. The second set of factors, which forms a person's perception of desirability, stems from value systems imparted by an individual's culture, family, peers, colleagues and mentors.

Another model, which is based on empirical evidence founded on an extensive study to determine the main factors influencing career aspirations among the 438 undergraduate samples from the U.K, the U.S. and Ireland, is developed by Scott and Twomey (1988). The model is presented in Table 3.4 below.

Table 3.4: Main Factors Influencing Career



(Source: Scott and Twomey, 1988 p. 7)

They have identified three major categories of variables that influence students' career aspirations towards entrepreneurship as a) "*predisposing factors*" which include parental role models and experience, perception of self as entrepreneur and organisation perceptions; b) "*triggering factors*" which include unemployment, career advice and seeking work; and c) possessing a "*business idea*". Their study had a very important conclusion that predisposing factors, triggering factors, and possessing a business idea "*act both independently and in concert to shape career aspiration*" towards self employment. One of the main differences between Scott and Twomey's (1988) model and Shapero and Sokol's model is that Scott and Twomey place strong emphasis on the importance of having a good business idea which is perhaps the strongest influence on career aspiration towards self employment.

Overall, besides having a business idea which has been argued earlier as the link between enterprising individual and an entrepreneurial career, there are

displacement factors that "*push and pull*" an individual towards entrepreneurship. The negative displacement factors which may push an individual towards entrepreneurship include the result of being forced out of work, voluntary or otherwise. The positive displacement factors which pull an individual towards entrepreneurship include the positive influence of parents and career advisers towards entrepreneurship as a career. Besides these factors, it has also been argued that career precipitating factors include the occupational values of self employment and the influence of other critical agents on an individual's career decision towards entrepreneurship. There are however other factors which influence and facilitate an individual to perceive that his/her entry into self employment through new business start-up is a feasible option and the business is viable and realisable. This naturally leads to the factors that influence the perception of feasibility towards entrepreneurship.

4.2 The Perception Of Feasibility

To convert the idea into a realisable and viable business venture or self employment, an individual needs resources and support which otherwise may form barriers to starting a business. The process of transforming the identified opportunity from the stage of "*preparing the venture*", to launching and growing the new venture demands enterprising behaviour in meeting the challenges at each stage (McMullan and Long, 1990).

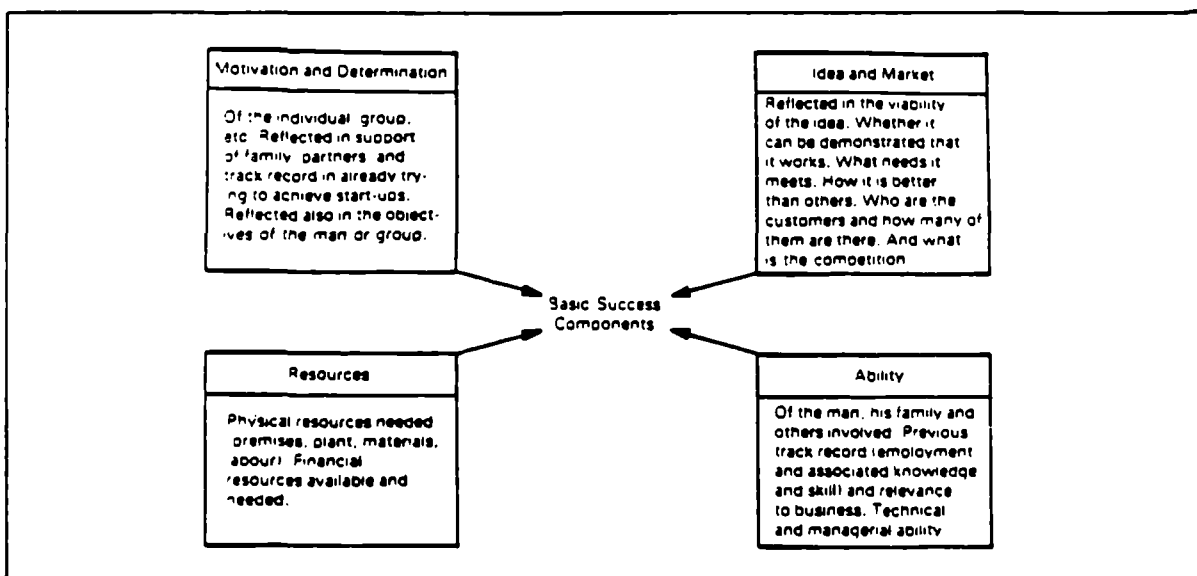
The importance of perceiving the feasibility of the new venture or self employment has also been highlighted in Shapero and Sokol's (1982) model in Table 3.3. It has also been recognised by Vesper (1980) and Gibb and Ritchie (1982) who have identified the importance of crystallizing and validating the idea, identifying and acquiring the resources, and having the knowledge of starting and managing a

business. For example, Vesper (1980) acknowledges the importance of the above factors in his five venture development stages:

- "a) *acquire technical knowledge;*
- b) *crystallizes the venture idea for capitalizing on that know-how;*
- c) *proceeds to develop connections;*
- d) *uses both know-how and connections to obtain manpower and physical resources to operate; and*
- e) *obtains customer orders as the business is begun"* (p. 99).

The Gibb and Ritchie (1982) model which was based on a research study of 54 would-be entrepreneurs representing 52 possible businesses suggests the importance of validating the business idea, identifying the resources and negotiating to get into business. They further suggest the importance of an idea as one of the key components in the successful development of a new small business as in Table 3.5.

Table 3.5: Key Components in Successful Development of a New Small Business



(Source: Gibb and Ritchie, 1982)

Hence Gibb and Ritchie (1982) and Vesper (1980) clearly indicate the importance of not only having a good business idea but also being able to translate the business idea into a realisable business venture. McMullen and Long (1989) also suggest the importance of acquiring the resources and assessing the viability of the idea. Those factors which influence the person's perception of feasibility of turning the idea into a realisable business venture and facilitate his/her becoming an independent business owner-manager or the self employed is termed the "*perception of feasibility of self employment*". The factors include the knowledge of how to start a business, business management skill, resource support, family support and technical product knowledge which are often perceived as barriers to starting a business.

The above discussions highlights the three important stages in entrepreneurial career choice, namely: having a business idea that links an enterprising individual to an entrepreneurial career; career precipitating stage; and the perception of feasibility stage. The key element that links an enterprising individual to an entrepreneurial career is, arguably, having a good business idea. However, there are other factors which influence the precipitation of an entrepreneurial career. These include: the influence of critical agents on career choice; the occupational values of entrepreneurship; and the positive and negative displacement factors. The key factors influencing the perception of feasibility of starting a viable business venture are having the knowledge of how to start and manage a business, the technical and product knowledge, financial and other resources, and support from parents. The third set of influences which form one's perception of the feasibility of company formation include such factors as the financial support available and potential partners willing to share the risk.

5.0 SUMMARY: TOWARDS A MODEL FOR THE DEVELOPMENT OF ENTERPRISE AND ENTREPRENEURSHIP AND A CAREER TOWARDS SELF EMPLOYMENT

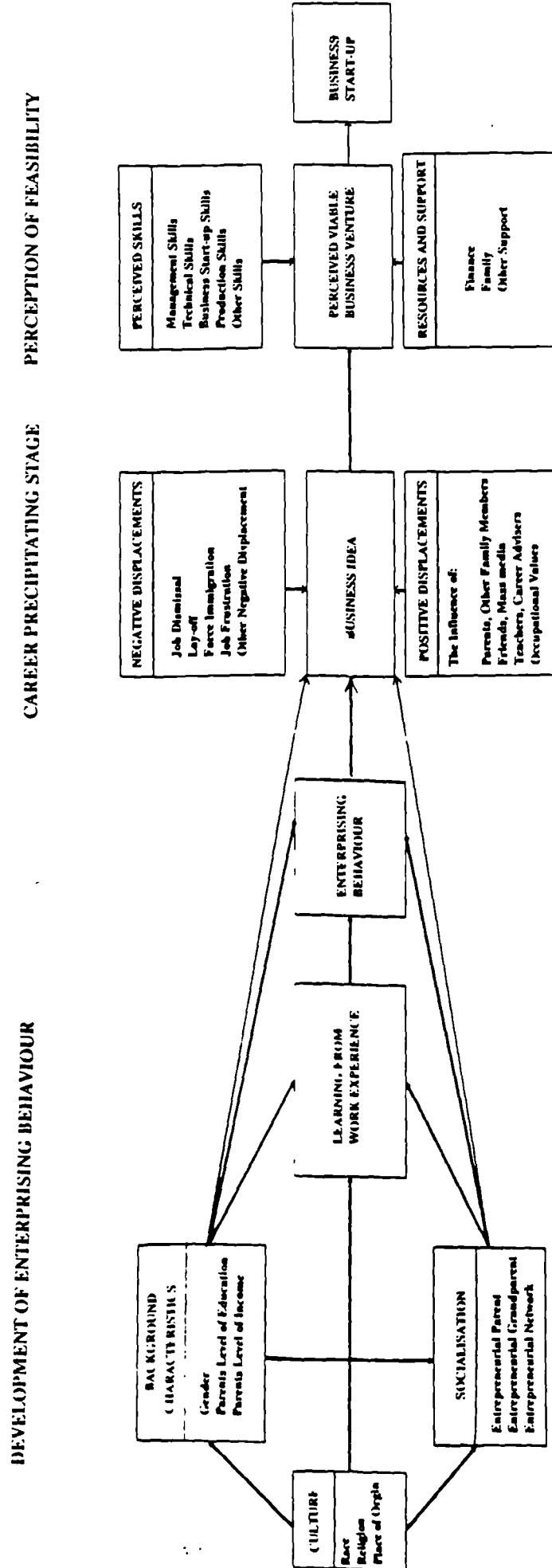
The literature review of entrepreneurship in economics, sociology and psychology and the literature in career choice provides an integrative view of the process of entrepreneurship development and its relationship to enterprising behaviour and career orientation towards self employment. Out of this review and discussion, a model of enterprise and entrepreneurship development can be developed as presented in Table 3.6.

A key position is given in the model to the development of enterprising behaviour in line with the argument pursued above that entrepreneurs and enterprising individuals share the common characteristics of enterprising behaviour. The model proposes therefore four stages in the development of entrepreneurship and a career towards self employment in business.

The first stage is the development of enterprising behaviour which is seen to arise from the major influences of culture, socialisation, individual characteristics and learning experience (formal and informal).

The second stage is the possession of a business idea which links enterprising behaviour to an entrepreneurial career aspiration.

A MODEL FOR THE DEVELOPMENT OF ENTERPRISE AND ENTREPRENEURSHIP



The third stage is the career precipitating stage, where the career precipitating factors trigger an individual into self employment. These precipitating factors "*push*" or "*pull*" the individual to consider an entrepreneurial career option. The occupational values of self employment, influence of "*critical agents*" on career and unemployment have been suggested as key influences on orientation towards an entrepreneurship career.

The fourth stage is the perception of feasibility stage of turning the business idea into a viable and realizable venture through the support of resources and family. To start a business venture successfully, an individual needs to validate the idea and to seek the support of resources, develop the knowledge of how to start and manage a business, and acquire finance, technical and marketing skills. These factors are often perceived as barriers to starting business which need to be overcome.

It is important to note that by and large the literature and the model do not award a major role to the influence of formal education in the entrepreneurship development process. Yet it is clear that at each stage there are considerable influences upon learning and resultant behaviour. If the model is therefore viewed through the eyes of a social engineer, it can perhaps indicate where the potential lies for influencing or compensating for certain factors via the more formal education process. In particular, it also begs questions as to how the education process influences enterprising behaviour.

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Note 1:

Letter from Professor Sexton, The Ohio State University, Columbus, Ohio (full letter as in Appendix 1).

CHAPTER FOUR
THE DEVELOPMENT
OF
A CONCEPTUAL LEARNING MODEL FOR DEVELOPING ENTERPRISE

1.0 INTRODUCTION

The aim of this chapter is to focus upon the process by which people learn and the relationship between the process and the educational outcome of learning, in particular the development of an individual's enterprising behaviour. The vehicle for exploring this is the review of the concepts and process of learning which leads to the development of a basic learning model. It will then demonstrate how this learning model can be utilised and adapted to serve the goal of supporting, stimulating and enhancing students' enterprising behaviour.

2.0 THE DEFINITIONS OF LEARNING

No discussion on higher education can afford to neglect the meaning of the word "*learning*" which lies at the heart of education. However, it is not the purpose of this section to review at great length the literature on learning but to focus on the process of learning and the factors influencing the outcome of learning and in particular its relationship to behaviour.

Learning theories may be divided into three major groups: behavioural, cognitive and social psychology. The behaviouristic theories are dominated by the writings of Thorndike (1931, 1932), Hull (1952), Pavlov (1960), Skinner (1972) and their proponents; the cognitive theories are dominated by the writings of Bruner (1970), Piaget (1977) and their advocates and the social psychologists are dominated by the writings of Rotter (1954), Bandura (1977, 1986) and their proponents.

There are, however, broad agreements between these groups as to the definition of learning and some of the associated concepts. These are: that learning is the result of experience; that experience must bring about an outcome in the form of change in an individual's behaviour; and that the change is relatively stable. Besides experience, Holland and Kobasigawa (1980), who review the work of social psychologists in learning, further add that a second major source of learning is through observation.

In reviewing some of the behaviouristic theories of learning, Maples and Webster (1980) for example summarize the meaning of learning as:

"a process by which behavior changes as a result of experience"(p. 1)

Forman (1980) reviews the work of Piaget, the cognitive theorist, and with some measure of agreement observes that:

"In most cases learning can be defined as a relatively permanent, but not irreversible, change of behaviour that has resulted from practice" (p. 252).

Overall, however, there seems to be much agreement that learning occurs through an experience which results in a relatively stable change of behaviour as a learning outcome.

3.0 THE PROCESS OF LEARNING

Learning is a complex area of research and each group of theories put forward at present are far from complete. Hence, Borger and Seabourne (1982) foresee that a global theory explaining and predicting all aspects of learning is still a long way off.

Despite the problems, some of the theories are sufficiently well established to offer some understanding of the learning process.

It is generally accepted that learning occurs as a process involving several levels or stages. Bloom (1956) suggests that learning occurs fundamentally in three domains or areas, the first being the cognitive domain which is primarily concerned with knowledge, understanding and problem solving. The second is the affective domain which is primarily concerned with one's feelings, beliefs, attitudes and values. The third is the psychomotor domain which is primarily concerned with motor skill activities. Although a learning outcome is argued as occurring in domains, a learning experience nearly always generates learning outcomes which occur in more than one domain and a change of behaviour is generally expected. Hence, learning begins with an experience through interaction with the environment and ends in the acquisition of new knowledge, attitudes or skills, which may be evidenced in a change in behaviour. Thus, it can be argued that the desired change of behaviour may be achieved by providing an appropriate learning experience in which an individual can be involved, within a facilitating environment.

Drawing from a number of learning theories, Pedler (1974) suggests that the learning process involves four different levels of learning objectives: memory, understanding, application and transfer (Table 4.1). These levels, argues Pedler, cut across the cognitive, affective and psychomotor domains discussed by Bloom (1956). Pedler further suggests that the objectives of the learning level determine the types of learning experience and the methods necessary to achieve them. In the model (Table 4.1), he suggests the various learning methods suitable to the different levels of learning objectives. For example, lectures, talks and programmed learning are the off-the job learning methods used to achieve the memory learning level; talks, discussion, business games and case studies, among others, are effective for the

understanding level; demonstration, practice, role play, among others, are useful in the application learning level; experiential learning situations, discovery learning, group exercises, sensitivity training are effective learning methods for transfer of learning to other situations.

Table 4.1: Levels of Learning and Learning Methods

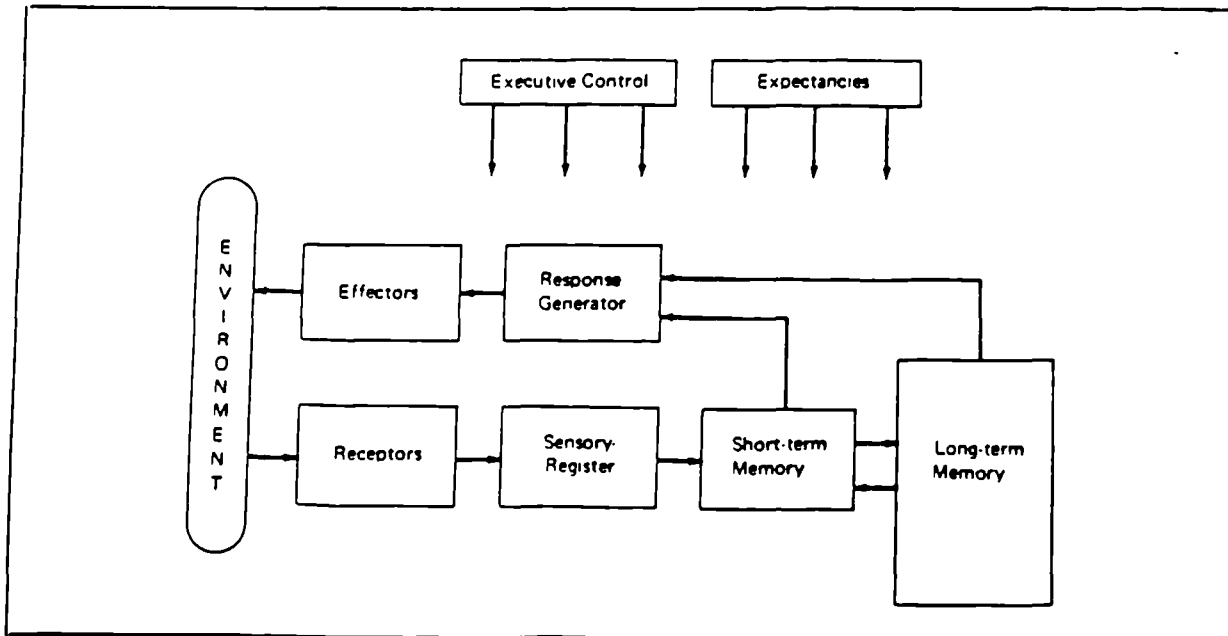
Level of learning	Description	Learning methods	
		Off-the-job	On-the-job
(1) <i>Memory</i>	Learner can recall facts, definitions, procedures, actions, behaviours. He can identify, define and describe.	Lectures Talks Programmed learning	Algorithms Checklists Information maps
(2) <i>Understanding</i>	Learner has grasp of concepts, ideas, procedures and techniques. He can explain, compare and justify.	Talk Discussion Case study Business games In tray exercises Incident studies Action maze Information maze Group feedback analysis	Assignments Projects
(3) <i>Application</i>	Learner can use the concepts, ideas, techniques etc. in standard situations. He can use or apply things in the "correct" prescribed way.	Demonstration and Practice Role play Some case studies Simulations In tray exercises Discussion	Demonstration and practice Supervised practice Coaching Assignments Projects Job rotation
(4) <i>Transfer</i>	From all the concepts, ideas, procedures and techniques ever learned, the learner can select the one most appropriate to a new, non-standard situation. He can modify or create new theories, ideas or tools to cope with unique situations where there are no "right" answers.	Experiential learning situations Discovery learning Brainstorming Discussion Dialogue Group exercises Sensitivity training Diagnostic instruments and feedback	Counselling Job rotation Assignments Self diagnostic instruments Process consultation Discovery learning

(Source: Pedler, 1974, p. 185)

A more elaborate representation of the learning process is one suggested by Gagne (1977). Gagne's theory which is known as "*information processing*" is based upon a theoretical model of learning and memory, as in Table 4.2. In this model, learning is initiated by an experience in the environment of the learner. The experience stimulates the learners receptors, such as eyes and ears and is transmitted to the nervous system through the sensory register. The sensory register then encodes the

received stimulus according to what the learners perceived. This code is then transmitted to the learner's memory.

Table 4.2: The Information-Processing Model



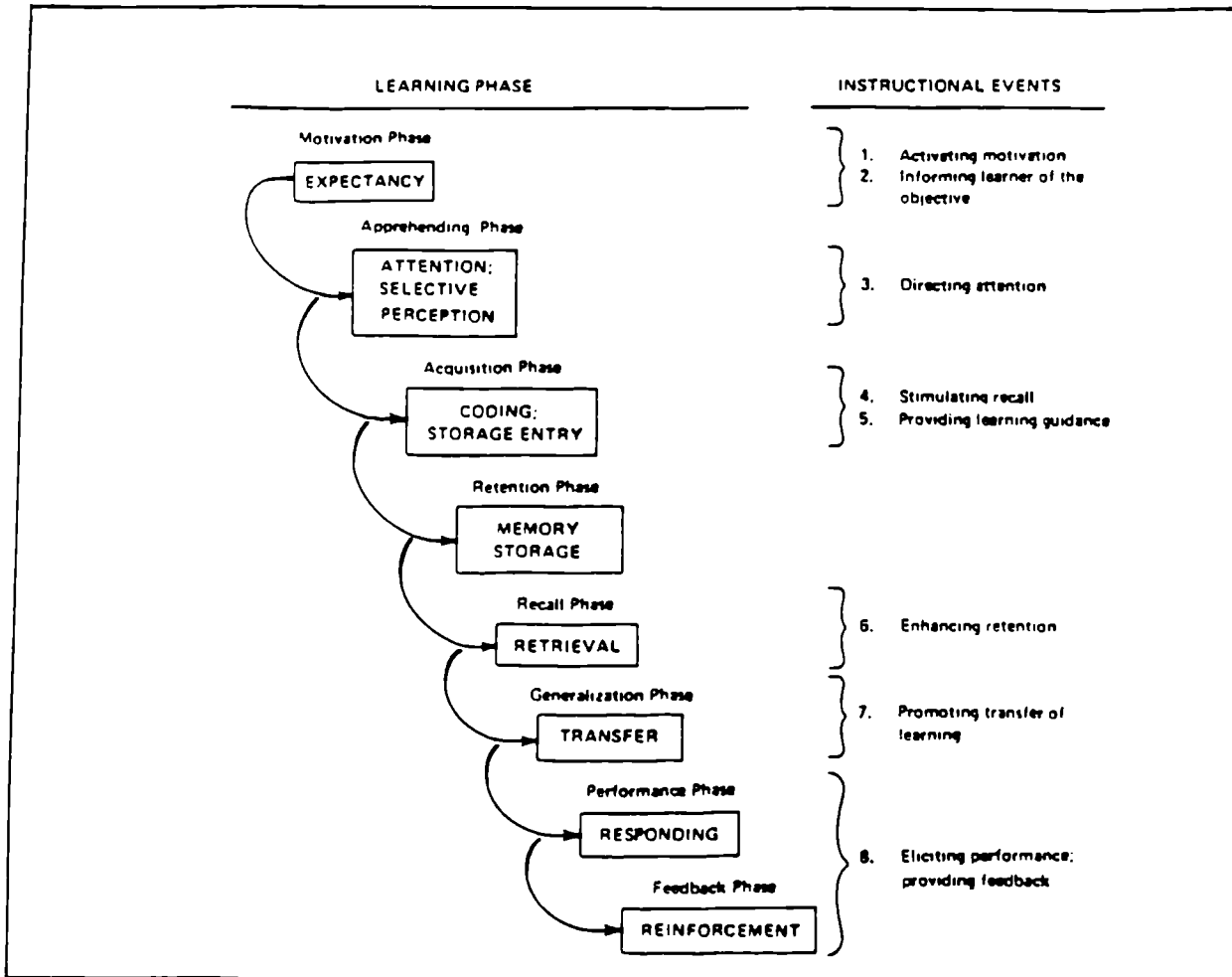
(Source: Gagne, 1977 p. 53)

Gagne (1977) considers a learner's memory to consist of short and long-term memory. Initially, the coded memory is sent to the short term memory. The short-term memory is often regarded as the working memory. If new learning is related to something that has already been learnt, it is then retrieved from the long term memory and then placed in the short-term memory for use. The response generator has the duty of converting the information into action to produce a performance that effects the environment. It is this response that the external observer uses to assess whether learning has occurred. The whole process, however, is considered to be carried out by two structures called "*executive control*" and "*expectancies*". These two structures have the functions of controlling and determining the performance of the process. The learner's expectancies establish what he/she feels he/she is able to learn and how he/she reacts to the experience he/she perceives. A person's set

execution control structure, on the other hand, determines how information is encoded and how the search is carried out on the retrieval of information.

Gagne (1977) suggests that learning evolves in phases. The phases of the act of learning and the processes involved are presented in Table 4.3.

Table 4.3: Phases of Learning and Events of Instruction



(Source: Gagne, 1977 p. 285)

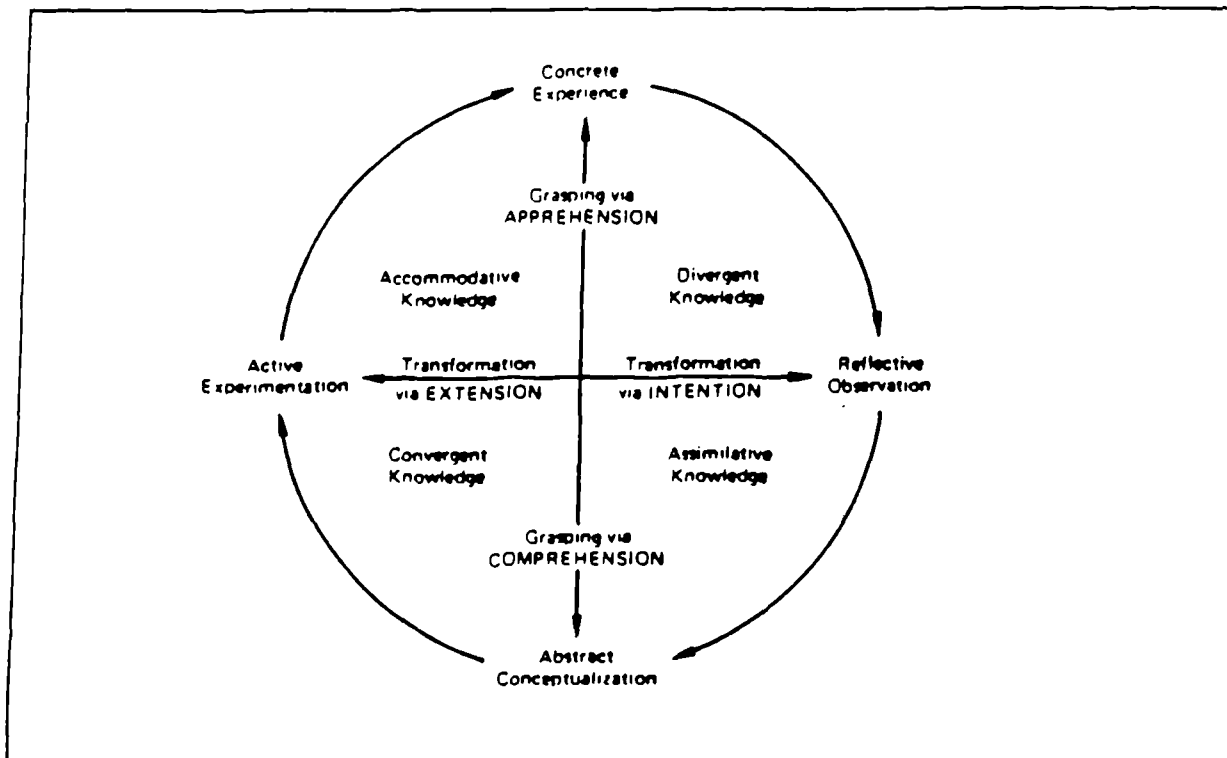
The phase starts by emphasising the importance of having a motivation for learning. It then emphasises the importance of the internal processes of learning, such as perception; encoding; memory storage and retrieval; the transfer of learning to new situations; active experimentation of learning through action; and the reinforcement of learning through feedback about performance.

Pedler, Burgoyne and Boydell (1978) present three basic levels of learning: a) a first level which deals with basic knowledge and information; b) a second level which deals with skills and attributes; and c) a third level which deals with "*meta qualities*". Burgoyne and Stuart's (1978) research on management learning goes on to suggest three different levels of learning which constitute different types of skills at each level. They are as follows:

- a) The first level of skill involves those skills of producing information about: i) basic facts; and ii) knowledge of a technical nature needed in decision making.
- b) The second level of skill involves: i) perceptive skills and data acquisition skills; ii) analytical, problem solving and decision making skills; iii) social skills, leadership skills, influencing skills and skills in communicating and responding which are used in working with and through people; iv) emotional resilience skills which are required for working effectively under stress and remaining sensitive to threatening events; and v) pro-active skills.
- c) The third level of skills constitutes: i) creativity skills to provide new ideas and approaches to solve problems; ii) mental agility and thinking skills which provide mental capacity and intelligence for understanding and grasping problems even under chaotic situations and pressure; and iii) balance learning habits and skills which enable one to learn from experts and to think practically how to apply theoretical concepts in practice.

Based upon the ideas of Kurt Lewin, Kolb (1984) suggests a problem solving based experiential learning cycle. The learning cycle consists of four main stages (Table 4.4).

Table 4.4: The Process of Experiential Learning

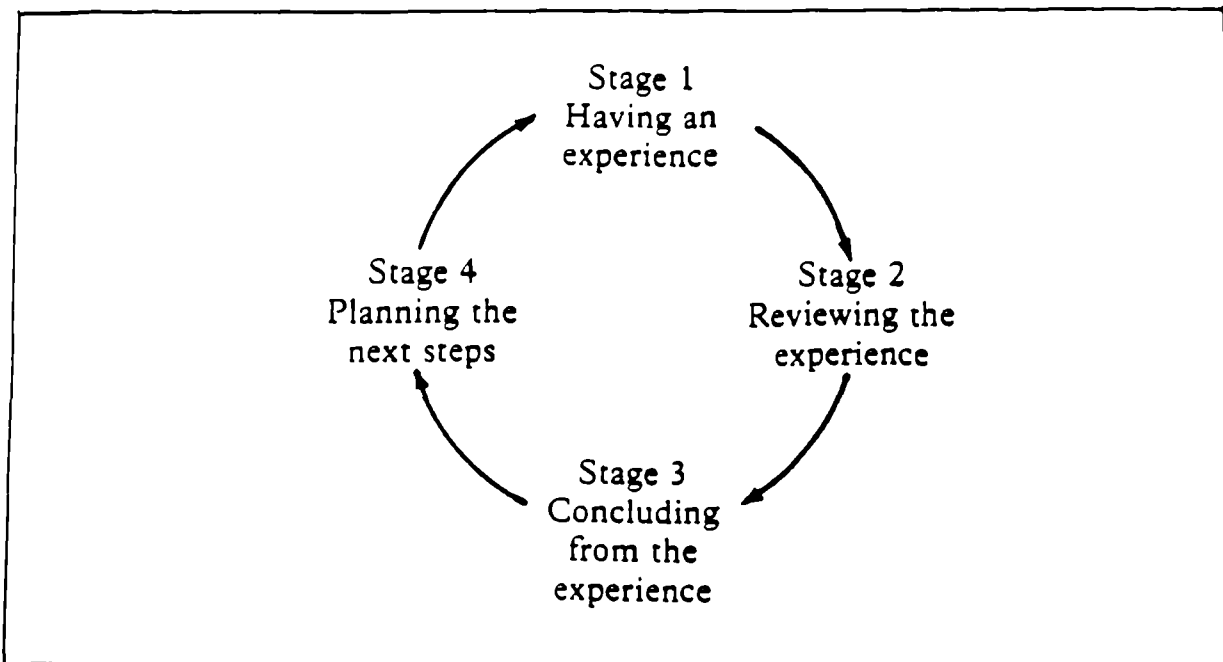


(Source: Kolb, 1984 p. 42)

The cycle commences with the first stage of concrete experience and then is followed by the next stage of understanding the subject through reflection upon its meaning. The third stage is to conceptualise a theoretical understanding of the subject which is followed by a final stage of active experimentation. Active experimentation is intended to test the theory in a new situation in order to determine whether it is correct or otherwise. Kolb (1984) concludes that "*learning is the process whereby knowledge is created through the transformation of experience*" (p. 38).

Adapting Kolb's experiential learning cycle, Mumford (1988) suggests a somewhat similar learning cycle of four stages, but with additional emphasis (Table 4.5). The cycle starts with the first stage of undergoing an experience. This is then followed by reviewing the experience. The third stage is to derive a conclusion from that experience. The fourth and final stage is planning the next steps.

Table 4.5: Honey and Mumford's Learning Cycle



(Source: Mumford, 1988 p. 66)

Although, Honey and Mumford agree with Kolb's emphasis on the necessity of knowledge creation in learning, they argue however that knowledge creation, although a necessity, is not a sufficient condition for learning. They suggest a definition which they claim to be both broader and tighter than Kolb's - that one has learnt something when either or both of the following descriptions apply:

"He knows something he did not know earlier and can show it. He is able to do something he was not able to do before" (Honey and Mumford, 1986a p. 1).

Mumford (1988) also suggests that learning may occur and is generated by the job, from other colleagues, from courses, and by learning from off the job. However, it is this learning from experience that Mumford argues, as being generally felt by individuals to be the most frequent and often the most influential feature in their development.

Burgoyne and Stuart's (1978) research has subsequently been elaborated upon by Snell and Reynolds (1988) to include twenty competencies. A summary of the

competencies and learning levels are presented in Table 4.6. Although their research deals with management learning, it does however provide some very fundamental points of learning at its different levels. Reviewing the above works, Thorpe (1990) suggests that the first level of learning is visible and can be handled by traditional management educational programmes. However, the second and third levels of learning, are "*having less to do with content and more to do with context and process*" (Thorpe, 1990 p. 5). To bridge the gap, Thorpe (1990) advocates Revans' (1980) Action Learning and argues that this method of learning develops high level competencies in a social context and above all an individual's experience of "*learning how to learn*" (p. 14).

Table 4.6: Management Competencies and Levels of Learning

Level of Learning	Management Competencies
Level 1	<ul style="list-style-type: none"> Working knowledge of the organisation Working knowledge of organisational policy Functional competence Interfunctional familiarity Mastery of managerial techniques
Level 2	<ul style="list-style-type: none"> Organisational and environmental awareness Organisational and environmental attunement Interpersonal sensitivity Problem solving Leadership and command Powers of persuasion Team development skills Coping skills Reliability and perseverance Concern for excellence Initiative
Level 3	<ul style="list-style-type: none"> Ingenuity and open-mindedness Conceptual agility Self-development orientation Self-awareness

(Source: Thorpe, 1990 p. 5)

In this review of research on learning processes, a number of key issues have been covered. Although there are differences in the way the learning process is seen to occur, there is generally broad agreement that learning occurs in levels which are classified according to the types of competencies acquired. There is also general acceptance that different learning levels require different methods of learning. However, there are differences in the number of levels employed to classify these competencies. Nevertheless, there seems to be general agreement that the learning process involves at least two levels: the first level deals with producing basic information and knowledge needed in decision making; the second deals with competencies, attributes and the higher level of learning concerning creativity, mental agility and thinking skills. Thus, learning begins with an experience and ends with the acquisition of knowledge, attributes and higher levels of skills which is demonstrated by a change in behaviour.

4.0 FACTORS INFLUENCING LEARNING

Learning has been argued earlier as a process which results in a change of learners' behaviour through an experience. The result of learning can be improved by influencing the factors involved in the process of learning. These factors influence the outcome of learning by improving the learners ability, opportunity and incentive to learn (Piper, 1978). The factors involved are internal and external to the learner (Rogers, 1986). The internal factors are concerned with the characteristics of the learners and their learning approach: the learning approach is reflected in the learning style preference. The external factors are concerned with the elements of the student's learning context which includes, teachers, learning modes, and the learning environment. To derive the basic learning model, the important factors which may influence the outcome of learning - a change in behaviour - are identified.

If the learning approaches and the external factors can be influenced, it is possible then to influence the effectiveness of learning. Since the learning approach is influenced by the characteristics of the learners, an important stage is to identify the learner's characteristics which may have an influence on the effectiveness of learning. Similarly, the external factors which facilitate and influence students' learning could also be identified and improved upon in order to enhance the effectiveness of a student's learning.

The characteristics and the approach of the learners which may have an influence on learning include the preferred learning styles, previous learning experience, motivation and interest, expectancies, level of anxieties, and other cultural and socio-economic background variables (Entwistle, 1981). On the other hand, the external factors are concerned with the aspects which may influence the learner's experience through interaction with the learning environment. These external factors which may have an influence on the learning outcome are teachers, learning mode and learning environment (Piper, 1978). These issues are explored, each in turn, below.

4.1 THE CHARACTERISTICS AND APPROACHES OF THE LEARNERS

There are differences in the way individuals learn. Mumford (1988) suggests that one of the major challenges to educational and training institutions is that of coping with individual differences. The key differences include differences in needs, differences in approaches to learning, differences arising between religious and cultural groups and the differences relating to gender.

In a review of research on learning effectiveness, Entwistle (1981) identifies the following main characteristics of students that influence learning effectiveness as:

preferred learning style, previous knowledge, intellectual skills, types and levels of motivation, level of anxiety and expectations of what is to be learned.

4.1.1 Preferred Learning Styles

Where individuals are exposed to a common learning experience, some report their experience as useful while others do not. The reason for this divergence, Honey and Mumford (1986a) argue, is explained by the difference in their preferred learning styles.

There are numerous definitions of learning style. Gregore (1979) suggests that learning style is a moderating variable which links underlying causes with learning behaviour and appears to be both "*nature*" as well as "*nurture*". However, the most frequently cited definition of learning style is one suggested by Keefe (1982):

"Learning styles are characteristically cognitive, affective, and physiological behaviours that serve as relatively stable indicators of how learners perceive, interact with and respond to the learning environment" (p. 44).

Keefe's concept of learning styles comprises of three types of behaviours: cognitive, affective and physiological. However, Ferrel's (1983) review of learning styles' instruments shows that most of the instruments seem to emphasize one or two of these behaviours.

4.1.1.1 The Relationship Between Learning Style and Learning Outcome

Teachers' attention to the preferred learning styles of their students would increase the likelihood of their students achieving the learning outcome. James and Galbraith (1985), who utilise Cherry's Multi-model Paired Associates Learning Test to identify students' dominant perceptual learning styles, conclude that teaching

according to the students' dominant learning style would enhance a student's learning outcome. They further suggest that information about students' dominant learning styles should be used in the development of learning contracts. In another study, Loveall (1979) reports that there was a negative learning outcome when students' learning styles were not taken into consideration in teaching. Donnarumma's (1980) study comes to a similar conclusion that students who are taking tests or examinations and expect answers that are not consistent with their preferred learning styles are found to be at a disadvantage.

4.1.1.2 The Relationship Between Students' Learning Styles and Their Culture, Subject Areas and Careers

Preferred learning style is also found to be related to culture (Stodolsky and Lesser, 1967), subject area (Payton, 1979), career (Kolb, 1984) and more importantly learning outcome (Loveall, 1979; Donnarumma, 1980; James and Galbraith, 1985)

With regard to the relationship between learning style preference and culture, Singh (1988) argues that "*culturally unique learning styles represent a unique learning variable in the education of the culturally different*" (p. 358). The relationship between learning styles and the subject area of studies has been explored by many researchers. In a nationwide survey in the U.S. to determine a learning style preference unique to physical therapy students, Payton et. al. (1979) conclude that the "*typical*" physical therapy students tend to prefer a close working relationship with their instructors and the organiser. Another important finding is that physical therapy students dislike competition.

In a longitudinal study of learning style preference among medical students, Olmsted (1973) concludes that science oriented medical students prefer a "*dependent*" learning style, while people oriented medical students preferred an

"*independent*" learning style. Another significant finding in the study is that these learning style preferences can persist for several years. An almost similar finding is reported by Plovnick (1975) which shows that medical students with learning styles associated with primary care careers seem to be influenced by concrete work experience and are dissatisfied with the traditional basic science curriculum in medical schools. An interesting point suggested by Plovnik is that if there is a mismatch between a field or subject area learning norms and an individual learning style, the individual student is more likely to leave that field of study than to change their learning style.

Kolb (1984) argues that learning style preference is related to an individual's career. To support his argument Kolb (1984) cites a number of research results. Using the Kolb Learning Style Inventory, Wunderlich and Gjerdi (1978) report that 46 per cent of the samples of medical practices are "*convergers*". Kolb (1984) further contends that an individual's current job role influences their learning style. The task demands and pressure of the job tend to shape an individual's "*adaptive orientation*" (p. 90). A study by Weisner (1971), which is also cited by Kolb (1984), used Kolb's Learning Styles Inventory on 20 managers from five functional groups - marketing research, personnel, engineering and finance in a large American industrial corporation. The study concludes that the Learning Styles Inventory clearly differentiates learning styles that characterise managers with different job functions in a single company.

In a study on the learning styles of nurses, Christensen et al. (1979) report that 70 per cent of the sample in their study are "*divergers*" or "*accommodators*". Sim (1981) in studying job role demands in social-work and engineering finds that social-work administrators are mainly "*accommodative*" in their learning style, while engineers have a "*divergent*" learning style. However, the study finds no significant difference

among the three major roles of professional engineers - bench engineer, technical engineer and general manager.

Although there is evidence to suggest that learning style preference is related to culture and subject area, however the relationship between learning style preference and career is suspect because of the validity and reliability of Kolb's Learning Style Inventory used. As Stout and Ruble (1991) conclude "*overall, reservations concerning the LSI (Learning Style Inventory) as a measuring and classification instrument are raised researchers are cautioned on the continued use of the LSI in education research*" (p. 41, 51).

4.1.2 Previous Learning Experience

One of the characteristics that affect learning is the learner's previous knowledge (Entwistle, 1981). The results of a number of studies (deGroot, 1965; Chase and Simon, 1973), which are cited in Bransford et al. (1989) show that differences in terms of previously acquired knowledge affect learning. The results of many other experiments support the argument that previously acquired knowledge through learning and work experience affect learning (Spilich et al., 1979; Voss et al., 1986). Among previous learning experiences, learning from work experiences has been considered as one of the most significant learning experiences (Mumford, 1988).

4.1.3 Stages of Intellectual Development

The differences in the stage of an individual's intellectual development affects that persons learning. Entwistle (1981) suggests that some university students may not have reached the level of cognitive development to enable them to deal with abstract concepts.

Another interpretation of intellectual development among higher education students is suggested by Perry (1970) who identifies nine development stages. The lowest is where students rely heavily on teachers to tell them what is right and what is wrong. The second stage is where students seek to discover the "*facts*" and the right answer to each problem. The third level is where students are able to recognise that certain problems have more than one legitimate answer. The stages of development continue to the ninth, the highest stage, where students are able to develop their own intellectual commitments.

Regarding the suitability of teaching methods for students at different stages of intellectual development, Cockburn and Ross (1977) suggest that there are links between students' stages of intellectual development and the most suitable teaching methods. Like students, teachers too can be at different intellectual stages. Their intellectual stage may reflect their expectations from students. For example, it may be observed that the teacher who sets true-false and multiple choice questions in a final examination for a relatively small class is probably at Perry's lowest level of "*right answer*" (Miller, 1987).

4.1.4 Motivation

Like previous learning experience and stage of intellectual development, motivation determines the success of learning. Garrison and Magoon (1972) argue that motivation acts primarily as an energiser, particularly during the initial stage. Once the students perform a learning task as a result of the pleasure derived from the performance, the learning task generates intrinsic motivation. Thus, if one is interested in the subject or task being learn, learning is likely to be more effective. Although cause and effect are apparently not clear in studies of motivation,

Uguroglu and Walberg (1979) find a strong correlation between motivation and academic achievement.

4.1.5 Level of Anxiety

Another factor which has an influence on a student's learning is the level of anxiety. Anxiety, according to Gage and Berliner (1984) is a general disposition to feel threatened by a wide range of non harmful conditions. There is evidence to show that high-anxiety students do not perform as well as low-anxiety students at certain kinds of tasks, particularly tasks that are characterised by challenge, difficulty, evaluation of performance and time pressure (Sarason et al., 1960). Sarason et al. further show that high anxiety students perform worse in timed situation whereas the low-anxiety students perform worse in untimed situation.

Anxiety is also related to learning style. In a study conducted with physical therapy students, Hueter (1976) finds that there was a high level of anxiety in the group which was made to learn under the conditions and modes least preferred by the learners. These provide implications for teachers and learners on teaching and learning strategies. For example, Gage and Berliner (1984) suggest that in an unstructured learning environment, high anxiety students perform poorly. For these students, teaching methods that are "*open*" and "*unstructured*" may create certain difficulties for them.

4.1.6 Expectations

Expectancies represent the specific motivation of students to reach the goal of learning. This goal of learning may be set by the students themselves, by others, or both the students and others. An expectancy, argues Gagne (1977), is "*a continuing*

set, oriented towards the goal accomplishment, which enables the learners to select the outputs of each processing stage" (p. 61). What a learner intends to achieve may influence what and how he or she learns. However, what a learner intends to achieve can also be influenced by teachers' expectations such as the type of examination answers required to obtain good grades. Feedback is also useful in learning because it confirms the learners expectancy. The feedback may act as a reinforcement and the effects of these reinforcements may influence learning by communicating information to the learner as to whether he has reached the goal of learning or is close to it (Estes, 1972).

4.1.7 Other Characteristics

In learning, culture, social class and other variables such as age, marital status and sex are the major learner's characteristics that may affect a student's learning effectiveness. A student's social class, cultural background and economic status are argued as affecting the lives of children even beginning before birth (Garrison and Magoon, 1972). These differences are argued to continue thus affecting a student's learning. Coleman et al. (1966) in their nationwide survey in the U.S. titled Equality of Educational Opportunity find that, in general, students in the urban areas showed higher achievement.

It can be summarized that students' learning approaches which are reflected in their preference for certain learning style are influenced by their previous learning experience, stages of intellectual development, motivation, level of anxiety, expectations, age, gender, socio-economic and cultural background. Students' preferred learning style is related to learning outcome and culture. In addition, teachers' expectation and attention to the preferred learning styles of students are also found to be related to students' learning outcome. It follows from this that the

characteristics and approach of the teacher are important in influencing students' learning outcome.

4.2 THE CHARACTERISTICS AND APPROACH OF THE TEACHER

The second major factor to directly influence learning effectiveness is the characteristics and approach of the teachers who are controlling the courses in an academic department. The characteristics and approach of the teachers may influence students' learning in three different ways. Firstly, they provide role models to their students. Bandura's (1977) social learning theory has important implications for teachers and those who influence students learning and behaviour. Students are said to learn from a teacher's behaviour in three different ways: "*instrumental learning; associative learning; and vicarious learning*" (Krumboltz, et al. 1976). Secondly, since teachers are found to be among the "*significant others*" who have an influence on a student's career choice (Hotchkiss and Borow, 1984), the teachers not only offer role models but also have an influence on students' future career choices. Finally, teachers' characteristics such as their previous experience, expectations, motivation and their preferred learning styles may influence a student's learning. In addition, teachers being facilitators of learning may influence a student's learning by improving a student's ability to learn and by providing the maximum opportunities for them to learn and improve their incentive to learn (Piper, 1978).

4.2.1 Teachers' Learning Styles

Like students, teachers generally have a preference for a certain learning style. What is more important is that teachers tend to teach according to their preferred learning style. Kuchinakos' (1979) study on learning style preferences and teaching

styles confirms that teachers tend to teach in the style that represents their own preferred learning style. Schmidt (1984) even insists that it is desirable for teachers to assess and identify the student's preferred learning style so that teaching and learning strategies could be matched. On matching teachers' learning style to students' learning style, Dunn and Dunn (1979) conclude that "*extensive observations and research verify significant improvement in both student achievement and motivation when teaching styles and learning styles are matched*" (p. 242). They further emphasize the need for teachers to learn to adjust to differences in students' learning styles. According to them, adjusting teaching strategies to a student's learning style is superior to matching a student's learning styles to a teacher's preferred strategies. In addition, Conti and Welborn (1986) strongly suggest that making learners aware of their own learning styles and helping them to become effective in adapting their styles to teaching strategies may indeed improve the student's ability to learn.

4.2.2 Improving Students Ability To Learn

In asserting that the goal of teaching is learning, Dressel and Marcus (1982) and Ericksen (1984) argue that teachers are primarily facilitators of a student's learning. Hence, it is part of the teacher's responsibility to assess the learning needs and styles of students in order to help students in improving their ability to learn. With the guidance from their teachers during the early stage, students may continue to develop their own learning skills by themselves. Teachers are encouraged to evaluate student's learning progress and develop the learner's independence and motivation to learn. It means that students need to advance from dependent memorising, which was argued as being the first level of learning, to the higher level of learning which involves "*independent thinking and problem solving*". This, Knowles (1975) argues, would improve a student's readiness for "*self-directed learning*" to

prepare students for "*life-long learning*" (Jarvis, 1988; Gross, 1977). Thus, the success of teaching must not be assessed by "*what the teacher does or asks students to do, and most certainly not solely by the scholarly precision and verve*" (Dressel and Marcus, 1982 pp. 13-14).

4.2.3 Providing The Opportunity To Learn

It has been argued that learning occurs through an experience. Thus, providing the opportunity for one to experience and learn is crucial. In addition, Ramsden and Entwistle (1981) argue that learning would be more meaningful if teachers would emphasize the process rather than the content of learning. Hence, it would appear that the effectiveness of learning would not only require content but more importantly the process where an individual is given the opportunity to experience the process in achieving the learning objective.

4.2.4 Improving The Incentive Of Students To Learn

Piper (1978) suggests that to improve a student's learning, there is a need for teachers to improve the student's incentive to learn. Some of the important elements of learning that influence a student's incentive to learn are the assessment methods and the teaching strategies. Ramsden (1981) finds that students who perceive "*good teaching*" also show higher scores on the "*deep approach*" to learning and intrinsic motivation. What is important, Ramsden (1981) argues, is that the incentive to take this meaningful approach to learning is found to be related to the assessment demands. If good grades are awarded based on the reproducible capacities of students in examinations, and teachers are mainly transmitting information efficiently, then students are more likely to take a "*surface approach*" of

reproducing what has been transmitted to them by the teachers rather than a more meaningful "*deep approach*" to learning.

It has been suggested by Laurillard (1987) that "*for most students, the inclusion of a quantity of facts is a better guarantee of good marks than relying on the quality of an argument*" (p. 204). Thus, if examination grades are taken as "*an administrative shorthand for classifying students ... and grading is an end product measure*" as suggested by Ericksen (1984) students would be more likely to adopt a learning approach that suits to this type of assessment demand. One of the approaches to provide a realistic expectation and improve a student's incentive to learn, Piper (1978) suggests, is to negotiate with the students on the assessment methods. This implies that the measurement of successful learning has to include the development of one's behaviour.

Overall, the teachers' previous learning experience, motivation, expectations and their preferred learning style influence their approach to teaching. What is more, teachers generally teach in the style which represents their own preferred learning style. This obviously in turn influences students' learning. Teachers can in fact influence a student's learning outcome by: a) improving the student's ability to learn by matching teaching methods to students' preferred learning style; and b) by adjusting the process of learning to the learning objectives. In addition, teachers also provide role models and influence students' career choice.

4.3 LEARNING MODE

It has been argued that learning is achieved if the desired change in behaviour occurs. There are "*steps or processes which lead to the achievement*" of the learning objectives (Morrison and Ridley, 1988), which is termed here as learning mode.

Learning modes include the curriculum emphasis, learning content and structure, learners' role, teachers role, learning methods used, organisation of learning situations and assessment methods of learning outcome in the process of students' learning. Morrison and Ridley (1988), while suggesting these learning modes as components of "*educational ideologies*", acknowledge their importance to curriculum planners, teachers, students and those who are involved in students learning because they contain "*values, beliefs and assumptions*" about curriculum emphasis, teachers role, students role, learning methods and evaluation methods of students' learning which are important to the student's learning process in achieving the desired learning outcome.

There are two schools of thought regarding the role of learners in the learning process. The first is where learners take a passive role (Taylor, 1968). The second is where learners are regarded as "*active participants*" in the process (Bruner, 1974 p. 397). Bruner (1970) develops a theory of instruction and suggests some main features of the learning process. According to Bruner, learning should provide experiences through three main methods: the enactive mode (knowing something through doing it); the iconic mode (knowing something through seeing or constructing a picture or image of it); and the symbolic mode (knowing something through the symbolic means, e.g. language). In addition, Bruner suggests that learning modes depend on the individuals' characteristics and preferences.

Laurillard (1987) suggests that learning is more likely to be achieved if the process of learning takes place in a mode that presents the real dynamics of the process and content of the learning task. To develop students' independence and responsibility, for example, modes of learning which incorporate independence and responsibility in the learning and teaching process are necessary. Such mode requires students' to be given greater responsibility for their own learning which means "*greater*

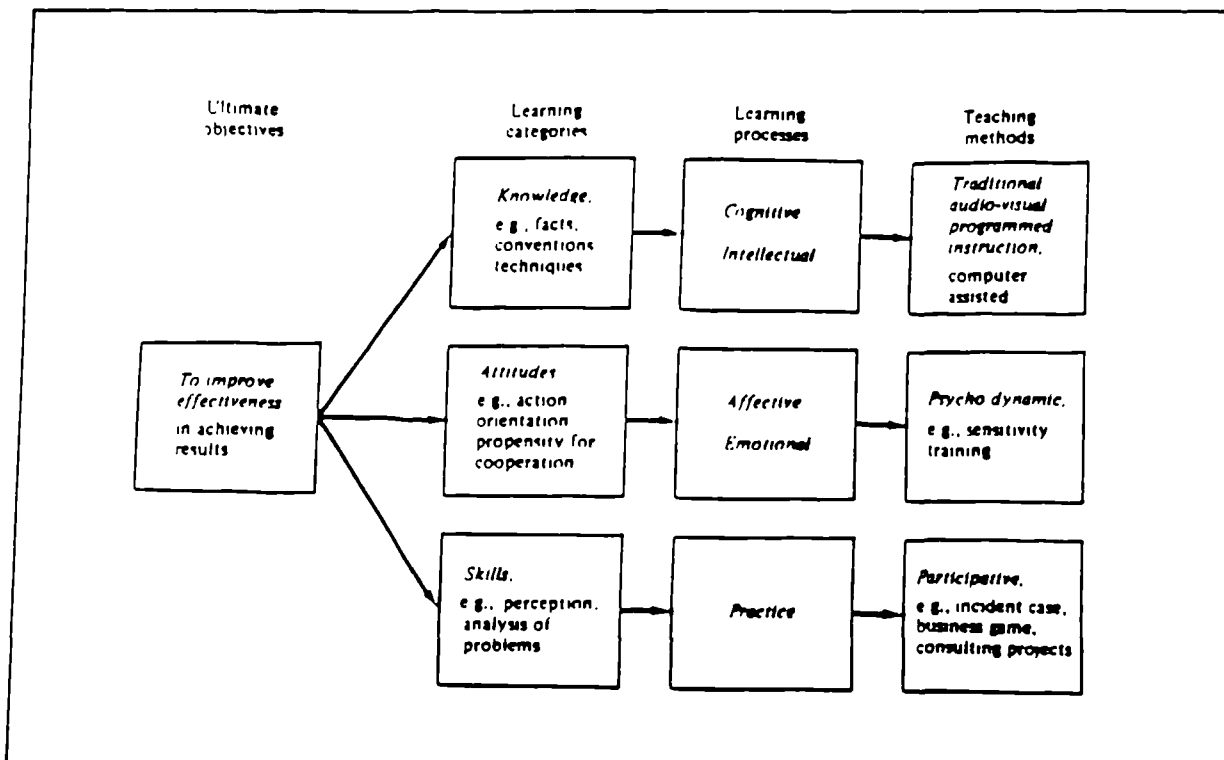
responsibility in setting learning goals, planning learning activities, using the teacher as a guide or facilitator, selecting learning projects, choosing where, when and how to learn, and reflecting on the learning process and assessing learning outcomes" (Hj.Din and Gibb, 1990a).

4.3.1 Specific Learning and Teaching Methods

An important element related to learning modes, which may have influence on the learning process, are the learning/teaching methods used. Pedler (1974) suggests that the appropriate learning and teaching methods used depend on the learning levels to be achieved, for example, memory, understanding, application or transfer (Table 4.1). However, he is quick to note that the learning methods suggested in the table should not be taken literally because, according to him, all classifications of learning methods are inadequate.

Like Pedler, Hawrylyshyn (1983) suggests that learning and teaching methods must be appropriate to the category of learning objective that is expected to be achieved whether this is knowledge, attitudes, or skills (Table 4.7).

Table 4.7: An Integrated Model Of Learning Process And Teaching Methods



(Source: Hawrylyshyn, 1983 p. 251)

Honey and Mumford (1986a, 1986b) however offer a different technique for determining the most suitable learning methods. Via their experience and research in management learning, they suggest that learning styles play an important role in determining the appropriate learning methods to match with the learner's learning needs. They classify learners according to their preferred learning styles as: activists; reflectors; theorists; and pragmatists.

According to Honey and Mumford (1986a), activists learn best from new experiences. Learning methods which demand "*here and now*" activities such as business games, competitive team-work tasks, and role playing exercises attract activists. However, they suggest that activists learn least from a learning experience which involves their passive role such as listening to lectures, theoretical explanation and drilling. On the other hand, reflectors are said to learn best when they are allowed to watch and stand back from events, such as observing a group at work or

watching a film or video. However, they are said to learn least if they are "forced" into the limelight such as acting as leader or having to take a leading part in role playing. Theorists like learning activities which involve models, concepts and theories. However, they dislike unstructured learning activities where ambiguity and uncertainty are high. The last group, the pragmatists, learn best by linking the subject matter of learning to the problems or opportunities on the job. They are attracted to learning via real problems or good simulation exercises. On the other hand, they seem to dislike learning activities that are too theoretical and far from reality. Discussing the learning modes and teaching strategies preferred by the different categories of learners and teachers, it is also important to note that the teaching methods used by teachers depend on the ability of the teachers to use the different methods suggested above (Bligh, 1990). This expertise can however be developed through training.

In summary, learning modes adopted are important to the students' learning process and learning outcome involving as they do, curriculum emphasis, pedagogy and evaluation methods. They are crucial in achieving desired learning outcomes because they constitute the main process, whereby all other elements (learning environment, teachers and students) are integrated into the process of achieving a learning outcome.

4.4 LEARNING ENVIRONMENT

Learning has been earlier suggested to occur as a result of an experience which naturally occurs in some environment or other. The term "*learning environment*" refers to those aspects of the institution that affects students' learning, for example its physical plant, facilities, administrative policies and structure (Wilson, 1981); and the individuals in the institution which have influence on students' learning. The

overall environment where learning takes place is one of the major factors to affect student's learning (Cooley and Lohnes, 1976). The structure of the departments where learning takes place also affects students' learning (Wilson, 1981). There is evidence that the "bureaucratic world" of higher education does not motivate students' learning (Wankowski, 1973). It has also been argued that the learning environment is related to students' anxiety which ultimately influences students' learning outcome (Gage and Berliner, 1984).

Piper (1978) argues that the ideal learning environment is one which would improve the student's ability, their opportunity and their incentive to learn. Similarly, it can also be argued that the ideal environment for teachers to help students learn is the environment that will improve a teacher's ability, a teacher's opportunity, and finally improve a teacher's incentive to help students to learn. For example, if the aim of learning at higher education is to develop students creativity and innovation, then teachers, the academic department and the higher education institution as a whole must encourage and reward the process of creativity and innovation to happen in the higher education community. As Porter (1985) suggests:

"Creativity and innovation are processes that must be encouraged and permitted to happen, not projects or products that can be predicted, controlled, or 'managed'. The creative process proceeds best when there are no constraints on the thought process, no planned or controlled format that must be used, and no established laws, theorems or assumptions that cannot be questioned ... The nurturing occurs through trust, support, and the commitment to reward success - without punishing failure. In other words risk taking must be supported and encouraged" (p. 60-61)

In addition, an environment in which there are positive role models for students to emulate the desired behaviour is also an important source of learning (Bandura, 1977; Holland and Kobasigawa, 1980).

In summary, it has been argued above that the environment that supports the development process leading to the desired behaviour is essential to achieve the learning outcome. The ideal learning environment is one that improves students' ability, opportunity and incentive to learn. The ideal teaching environment is one that improves teachers' ability, opportunity and incentive to teach. It means that the learning environment, which is represented by its structure, facilities and policies, must be supportive of students' learning particularly in the process of stimulating and inculcating the desired behaviour (outcome of learning) among students.

5.0 THE BASIC LEARNING MODEL AND THE FACTORS INFLUENCING LEARNING

It has been argued that learning is a process that occurs through an experience and results in a stable change in behaviour. It has been shown above that there are four major elements, interacting together to achieve the desired change in behaviour. They are, namely:

- a) the characteristics and learning approaches of the students;
- b) the characteristics and approaches of the teachers; and
- c) the learning mode.
- d) the learning environment

5.1 The Characteristics, and Learning Approaches, of the Students

It has been shown that the learning approach of the students which is reflected in their learning styles is influenced by the following: the learner's previous learning experience; background variables such as sex, age, race and religion; motivation; level of anxiety; intellectual; career aspiration; and expectation.

5.2 The Characteristics and Approaches of the Teachers

The key teachers' characteristics which may influence students' learning are the teachers' previous learning experience, motivation, expectations and their preferred learning style. In addition, teachers also provide behavioural role models and influence students' careers.

5.3 The Learning Mode

The key variables relating to the learning mode are the "*educational ideologies*" and the teaching methods adopted. The educational ideologies focus on the following: the curriculum emphasis; learning objectives and methods; and evaluation of learning.

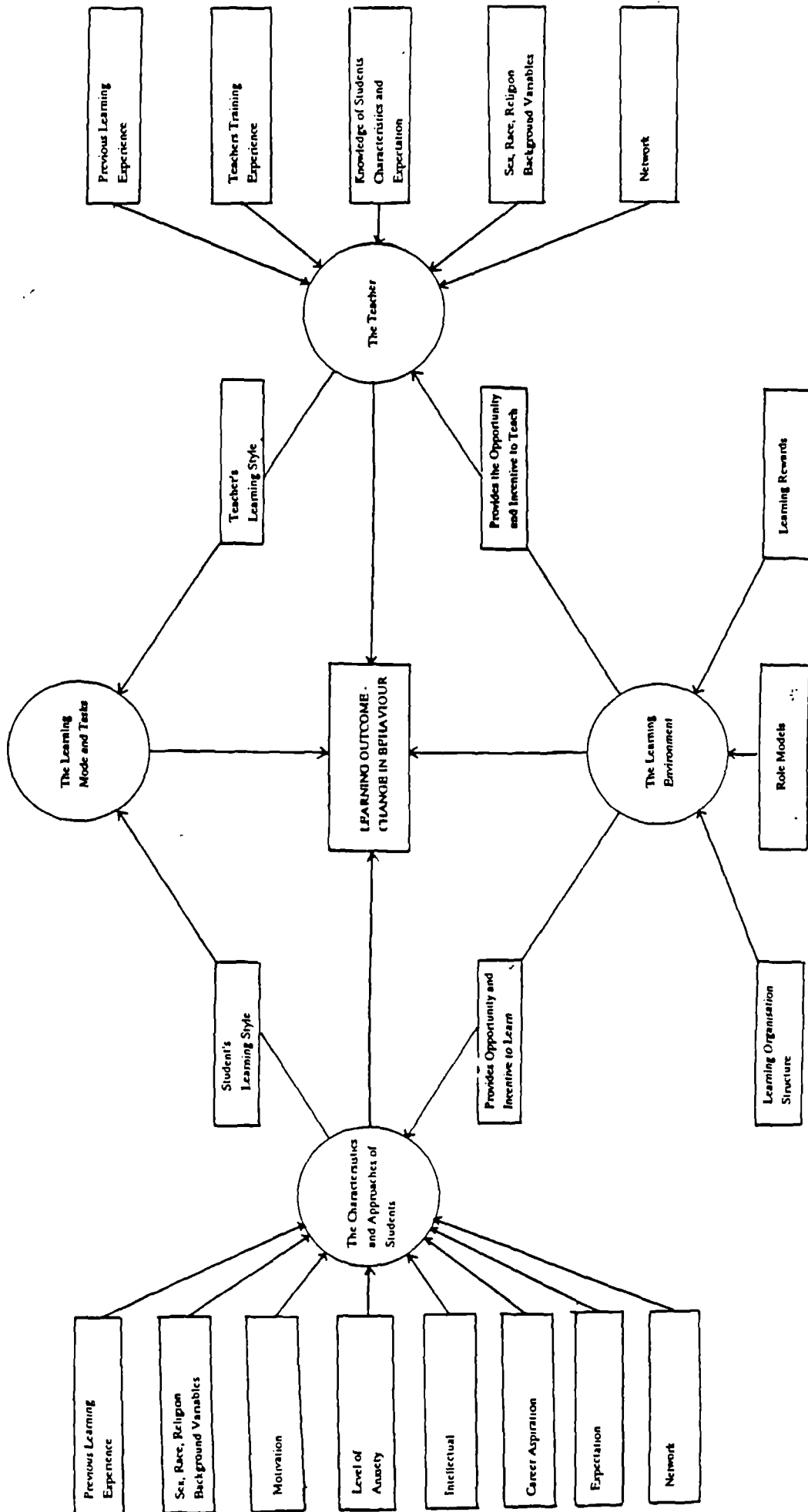
5.4 The Learning Environment

The learning environment is represented by the structure, facilities, policies and individuals in and around the students' learning environment. These key variables of students' learning environment must be supportive of the students' learning process in order to achieve the desired learning outcome. The student's learning environment may influence the behavioural outcome of student's learning by a) the availability of positive role models to provide a source of "*observational learning*"; and b) the provision of incentives and rewards for students to achieve the outcome of learning. In addition, the learning environment also influences students' learning indirectly by influencing teachers' ability, opportunity and incentives to teach.

The above key variables relating to each of the four major elements of learning which interact together in the students' learning process to achieve an outcome of

learning (desired change of behaviour) can be brought together in a basic learning model presented in Table 4.8 below:

A BASIC LEARNING MODEL



6.0 THE RELEVANCE OF THE BASIC LEARNING MODEL TO LEARNING FOR THE DEVELOPMENT OF ENTERPRISE

The basic learning model shown in Table 4.8 above arguably is applicable to most if not all learning situations. It is therefore also applicable to learning for the development of enterprising behaviour if this is the objective of learning and the aim of any particular education programme. It is the purpose of this section to argue how this model would need to be specifically adapted if the targeted learning outcome was that of delivering enterprising behaviour and entrepreneurship among students.

6.1 ENTERPRISING BEHAVIOUR AS AN OUTCOME OF LEARNING

It has been argued earlier that the national development policies of Malaysia have placed great importance on the development of enterprising and entrepreneurial students in achieving development priorities. Higher education is expected to play a major role in generating enterprising and entrepreneurial graduates. It is one of the major aims of higher education to generate enterprising graduates in general and Bumiputra entrepreneurial graduates in particular. It has also been shown earlier that entrepreneurs share some common characteristics with enterprising individuals. It has been suggested earlier that enterprising individuals have the following characteristics: high need for achievement; greater tolerance for ambiguity, stress and uncertainty; high internal locus of control; greater creative tendency; and a stronger drive and determination (Chapter 3). It means that generating students with enterprising behaviour is more or less the same as generating entrepreneurial students with the major exception that the latter have career aspirations towards entrepreneurship.

It is clear that higher education in Malaysia is not only expected to generate enterprising graduates but also those willing to venture into their own business (The Star, 1989). To achieve this objective higher education institutions are urged to collaborate with the private sector and seek their active participation (Malaysia, 1991).

It has been shown above that educational interventions, in facilitating learning, lead to changes in behaviour. There are those who would argue that most if not all the traits and behaviour which are exhibited by enterprising individuals can be enhanced via appropriate social engineering strategies (Timmons et al., 1985; Gibb, 1987; Ripple, 1977). Ripple (1977, 1989) contends that the development of these characteristics associated with creative behaviour (closely associated in definitional terms with enterprising behaviour) can be facilitated via educational interventions. Other evidence also suggests that creativity can be fostered (Hucker, 1988). Timmons et al. (1985; 1989) however suggest that creativity is "*not-so-learnable*", but they strongly argue that the other behaviours associated with enterprising individuals, namely: need for achievement; tolerance for ambiguity; internal locus and control; and drive and determination - can be nurtured, developed, acquired and learnable. There is not, however, a great deal of tested empirical evidence to demonstrate the impact and outcomes of such interventions particularly in respect of enterprising behaviour. But the conceptual argument and the results from experiments in developing creativity are strong (Miller, 1987; Harriman, 1988). The question remains open, however, as to how to develop enterprising behaviour among students at higher education.

Based on some of the major elements needed in fostering and developing creativity (Ijiri and Kuhn, 1988; Kuhn, 1985, 1988), this thesis will argue that enterprising behaviour, as an outcome of learning, can be achieved by suitable adaptation of the

learning model described above so that the teachers, learning environment and learning modes are themselves "*enterprising*", thus improving students' ability, opportunity and incentives to develop their enterprising behaviour.

6.2 THE CHARACTERISTICS AND LEARNING APPROACHES OF THE STUDENTS

It has been argued earlier that students' learning approaches are reflected in their preferred learning styles. Their learning approaches are being influenced by their previous learning experience and background variables such as sex, age, race and religion, motivation, level of anxiety' intellectual, career aspirations and expectations. Since this study mainly focussed on the role of education, the following discussion will therefore touch mainly on how, if at all, students' learning styles are related to the development of their enterprising behaviour. As a first step, a key question to explore is whether enterprising behaviour can be associated with a distinctive learning style.

It has been argued above that certain groups of individuals may develop distinctive learning styles and that learning styles can be improved and developed (Honey and Mumford, 1986b). A distinctive learning style provides the individual with "*learning strength*" in tackling certain learning activities (Honey and Mumford, 1986b). It has been found that successful and less successful business owner-managers have a marked contrast in their preferred learning styles (Thorpe, 1988). It follows "*a priori*" from the above argument that enterprising students may have distinctive learning styles which influence their approach to learning and provide them with the "*learning strength*" in tackling certain learning activities and tasks. It might follow from this argument that if learning styles can be developed, students might be coached to developed a learning style distinctive to enterprising students and thus be more likely to achieve a learning outcome of developing enterprising behaviour.

6.3 THE CHARACTERISTICS AND APPROACHES OF THE "ENTERPRISING" TEACHER

It has been argued earlier that the characteristics and approach of teachers may influence: students' learning outcomes (Piper, 1978); and students' behaviour (Krumboltz et al., 1976), by providing role models for the students. It has been argued earlier that certain groups of individuals have a distinctive learning style. It has also been shown that teachers teach according to their preferred learning style and that matching of teachers' teaching style to students' learning style improves learning and students' motivation (Dunn and Dunn, 1979). It can be hypothesized from this argument that enterprising teachers may have distinct learning styles preference and may teach in an approach distinct from less enterprising teachers.

It has been suggested that learning style preference can be improved and developed (Honey and Mumford, 1986a, 1986b). It follows the above argument that if the goal is to encourage enterprise teachers may need to develop their learning styles to match the learning and teaching modes preferred by enterprising students. The first challenge for teachers is however to be able to recognise and adapt to students' preferred learning style and learning needs. To recognise and adapt to these learning needs of enterprising students means that teachers must be able to recognise and identify the preferences of enterprising students with respect to the learning modes and environment. It may be easier for the enterprising teachers who have a preference for "*enterprising*" style of learning to recognise the need of enterprising students in this respect. On the other hand, it will be more difficult for the non enterprising teacher who have a less "*enterprising*" learning style to meet the learning needs of enterprising students. In order to facilitate the development of students' enterprising behaviour, enterprising teachers are, arguably, more likely

able to understand how enterprising students learn and to identify and pursue the learning experience that are more likely to stimulate enterprising behaviour.

Another key characteristic of teachers which has been argued to have an influence on students' learning is teachers' expectation. Teachers' expectation is reflected by their method of assessing students' learning outcome, which ideally requires them to assess the development of students. It can be hypothesized that enterprising teachers will be more likely able to identify and wish to assess the key characteristics of enterprising behaviour. This may also lead to review of conventional method of assessing students' success of learning through written examination grades which may be inappropriate for evaluating the development of enterprising behaviour.

In addition, since teachers provide role models and influence students' career, it means that teachers that display enterprising behaviour may influence students to emulate this behaviour. In addition, teachers with a positive perception towards entrepreneurship may also influence students' towards a choice of self employment as a long term career.

6.4 THE CHARACTERISTICS OF AN ENTERPRISING LEARNING MODE

It has been previously argued that learning involves at least two levels which need different learning and teaching modes. The first level is concerned with the acquisition of information, procedures and principles. The second level is concerned with the development of skills, attributes and qualities directly affecting behaviour and performance. It has also been suggested that the second level of learning requires greater attention to the process and context of learning. Since the development of enterprising behaviour is more concerned with the second level of learning, it will be argued here that learning for the development of enterprising

behaviour may call for two major elements in learning and teaching modes: Firstly, it may require greater attention to be given to the process and context of learning; and secondly, it may require learning and teaching modes to shift from emphasis upon the conventional acquisition of information, procedures and principles to the development of skills and behaviour related to being enterprising. Hj Din and Gibb (1990a) suggest that an enterprising learning mode demands a greater emphasis on the process of learning which incorporates the basic challenges of enterprising behaviour, such as uncertainty, ownership, commitment, flexibility, autonomy and so on and the exposure to the real dynamics of the enterprise and entrepreneurship. In order to develop an individual's enterprising behaviour, it is argued that the full potential of educational reinforcements for enterprising behaviour will not be fully tapped if students are not given the opportunities to be enterprising and the conditions under which they learn and work are themselves not designed to support enterprising behaviour (Hj. Din and Gibb, 1990a). To provide such opportunities, students need to take greater responsibility and ownership for their own learning where they are given the following opportunities: to choose their own learning tasks; to set their own learning goals; to plan their learning activities by choosing where, when and how to learn; to reflect on their learning process; and to be able to assess their learning outcome. In order to achieve these, there is no doubt that students need considerable learning skills which can be developed by themselves with the guidance of their enterprising teachers. Hj. Din and Gibb's argument supports Bruner's (1970) view on the active role of learners in the learning process where emphasis was given to "*enactive mode*".

The argument that an enterprise approach to learning is market driven and learner-centred (CEDEFOP, 1989) brings it into conflict with teacher-centred and "*product driven*" traditional method which values "*standardization, conformity, rote learning, specialised syllabus, rigid timetable, linear thinking*" and is "*examination driven*" (Lloyd,

1990 p. 58). Comparing the traditional teacher-centred to the learner-centred curriculum for learning, Macfarlane (1978) suggests that the traditional approach assumes, among others, that: students are passive recipients of knowledge; and teachers are experts who hand down knowledge. On the other hand, the learner-centred approach views students as active participants who may generate knowledge and teachers as facilitators who also learn.

The traditional method of learning in the classroom, where teachers are considered experts who hand down knowledge, is perhaps a learning mode which may probably not be able to offer the dynamics and responses of enterprise. As Eble (1988) suggests "*the classroom stood among the repressive forces in higher education*" in terms of students participation in learning (p. 45). Arguably, such a mode of learning would be less likely to develop and stimulate a person's enterprising behaviour. Similarly, a variety of other learning and teaching modes, for example through lectures, texts and essay writing, may lack the dynamics of enterprise.

Overall, the above discussion suggests that: hypothetically learning modes may need to give equal, if not greater, emphasize on "*process*" if enterprising students have a preference for "*student centred*" approach learning modes where students have greater control on their learning objectives, teaching methods, and learning sessions.

6.5 THE CHARACTERISTICS OF AN ENTERPRISING LEARNING ENVIRONMENT

It is hypothesized that the key characteristics of the learning environment pertinent for the development of students' enterprising behaviour are:

- The structure of institution where learning takes place is non-bureaucratic;

- The environment is one where rewards are based on results and the utilization of enterprising characteristics.
- The learning environment is one where there are a sufficient number of enterprising individuals.
- The learning environment is one where students are given the opportunity to work alongside enterprising individuals such as business owner-managers.

It has been argued earlier that a learning environment has to be supportive to the development of a desired behaviour, as a learning outcome. Gibb (1985) has for example contrasted the environment and focus of learning in higher education with that of the entrepreneur. It is also been suggested that structures and procedures in higher educational institutions are often bureaucratic and not likely to be conducive to enterprise development (Scott, 1988). Gibb (1985) and Scott (1988) suggest the need for higher educational institutions to be enterprising and to provide students and teachers with the opportunity to be enterprising.

Research has revealed that attitudes and behaviour are learnt from the individual's environment and that individuals are likely to emulate those attitudes and behaviour that they believe will lead them to success (William et al, 1989). It supports the argument for the need of an enterprising learning environment and the availability of enterprising role models in a learning environment for students to develop their enterprising behaviour.

In organisations, such as higher educational institutions, it is argued that regular contacts with enterprising role models, such as successful entrepreneurs, are crucial in providing opportunities for staff and students to learn the "*culture of enterprise*" and gain insights into being owner managers. Entrepreneurs' exposure to students'

learning may through teachers' entrepreneurial network, higher education-entrepreneurs collaborations or working directly alongside the entrepreneurs.

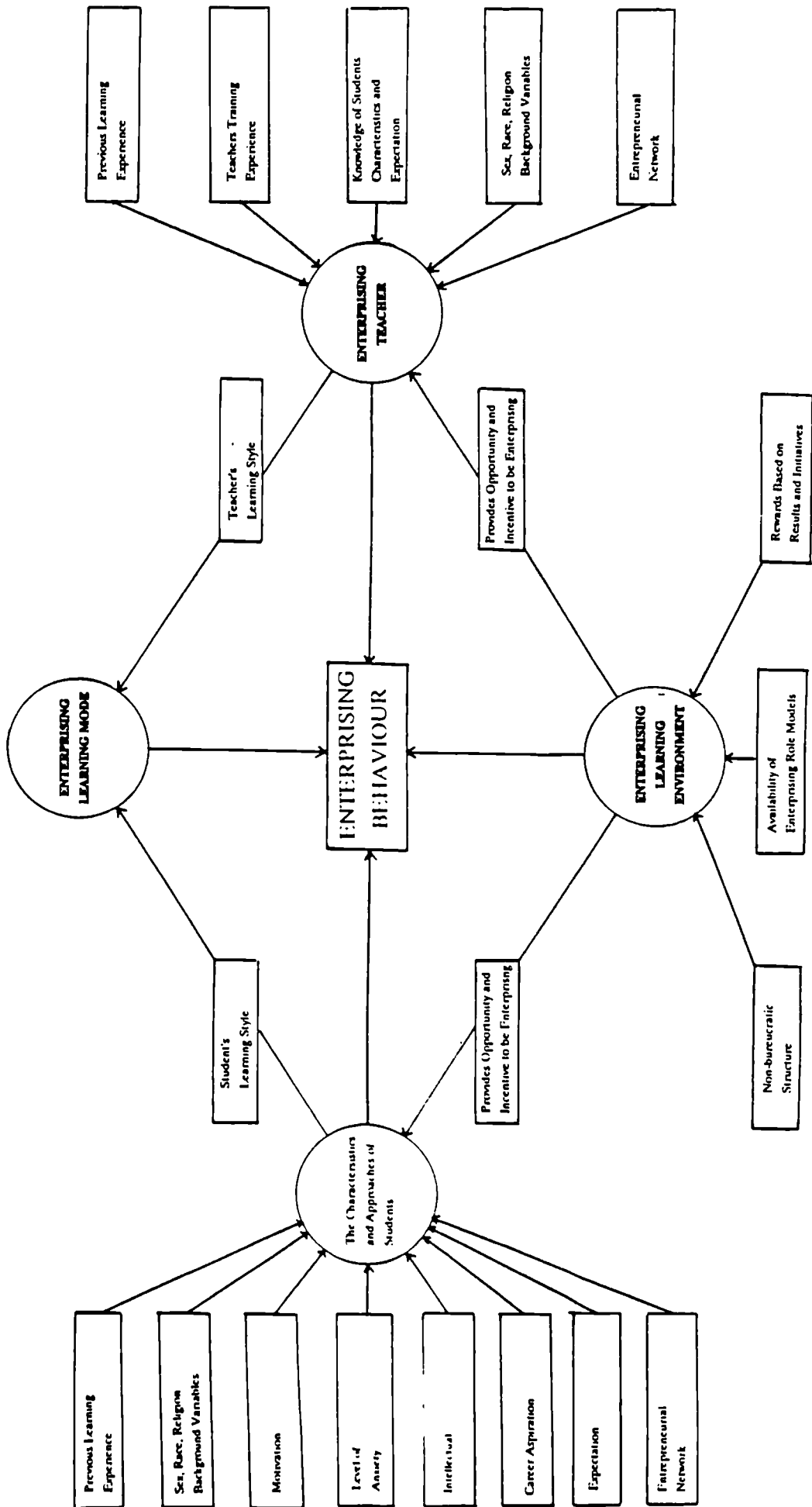
The issue of organisational settings and enterprise has been extensively discussed (Gibb, 1987). Due to the differences in the nature of the organisations and of the environment in which they are operating, there is reason to believe that certain organisational settings may offer a better learning environment for stimulating and enhancing students' enterprising behaviour. One of the organisational settings where learning opportunities are argued to stimulate and enhance enterprising behaviour is working in the environment of the owner managers of small businesses (Gibb, 1987).

It has been strongly argued that if students fail to achieve the outcome of learning, it is at least partly due to the environment of learning (Laurillard, 1987). Thus, it can therefore be concluded that the learning environment in the basic learning model may need to be adapted to incorporate the characteristics of enterprising learning environment.

7.0 SUMMARY: THE LEARNING MODEL FOR THE DEVELOPMENT OF ENTERPRISING BEHAVIOUR AND SOME KEY ASSUMPTIONS

From the above argument, a learning model for the development of enterprising behaviour is proposed (Table 4.9) adapted from the basic learning model in Table 4.8. The model suggests that learning for the development of enterprise (E), is a function of four key components, namely: i) the characteristics and approaches of the students (L); ii) the characteristics and approach of the enterprising teachers (T); iii) the enterprising learning mode (M); and iv) the enterprising learning environment (V). The learning outcome, which is enterprising behaviour, can be presented by the following relationship.

A CONCEPTUAL LEARNING MODEL FOR THE DEVELOPMENT OF ENTERPRISING BEHAVIOUR



$$E = f(L + T + V + M)$$

E = ENTERPRISING BEHAVIOUR

L = the characteristics and approaches of the students;

T = the enterprising teachers;

V = the enterprising learning environment; and

M = the enterprising learning mode and tasks.

It has been hypothesized that enterprising students have a distinctive learning style and they have a marked preference for certain learning modes. It also remains to be tested whether encouraging students to adopt an "*enterprising*" style of learning will affect enterprising behaviour.

It has been argued that enterprising teachers will have a distinctive learning style and this will enable them to be better able to understand and meet the learning needs of enterprising students. It has been hypothesized that enterprising teachers have a preference for adopting certain "*enterprising*" modes of teaching. In addition, it has been argued that enterprising teachers will provide enterprising role models for students to emulate.

It has also been argued that learning modes need to be adapted to improve students learning process to stimulate and develop their enterprising behaviour which requires the following new emphases from the conventional learning and teaching modes:

- a. Emphasis on process and context of learning rather than solely on content;
- b. Emphasis on the second level of learning to develop skills and behaviour related to enterprising behaviour rather than the emphasis on acquisition of knowledge.

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- c. Emphasis on teaching modes which may improve the development students' enterprising behaviour, such as the use of teaching methods that stimulate enterprising behaviour and the involvement of enterprising individuals in students' learning process.
 - d. Learning and teaching modes which are more students-centred rather than the conventional teacher centred.
 - e. Emphasise upon the need for students to be given the opportunity to take ownership and responsibility for their own learning which incorporate the key components of enterprising behaviour such as creativity, independence, ability to deal with ambiguity and other characteristics relevant to enterprising behaviour.

Finally, it is hypothesized that the key characteristics of the learning environment desirable for the development of students' enterprising behaviour are that:

- a) The structure of institution where learning takes place needs to be non-bureaucratic;
- b) The environment is one where rewards are based on results and the utilization of enterprising characteristics.
- c) The learning environment is one where there are sufficient number of enterprising individuals.
- d) The learning environment is one where students are given the opportunity to work alongside enterprising individuals such as business owner-managers.

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CHAPTER FIVE

THE DEVELOPMENT OF MAJOR HYPOTHESES

1.0 INTRODUCTION

In Chapters 1 and 2, the importance of generating enterprising and entrepreneurial graduates in order to achieve the Malaysian national development priorities was outlined. It has been argued that developing such graduates is crucial to the restructuring of employment and the creation of an entrepreneurial Bumiputra commercial and industrial community. There is evidence to suggest that the objectives of employment restructuring and the creation of entrepreneurial graduates have not been successfully met. There is also evidence to suggest that in Malaysia there is no clear conceptual understanding of the kinds of learning programmes that need to be designed for facilitating the development of enterprising behaviour and entrepreneurship development and for influencing careers toward self employment. As a result, while higher education has been recognised as one of the major gateways to developing enterprising and entrepreneurial graduates, attempts made so far have not been successful.

To address this issue, it has been argued that it is important to understand the processes and influences that shape entrepreneurship and a career towards self employment and their relationship to enterprising behaviour. Only then will it be possible to address the issue fully. It has been argued in the first instance that entrepreneurs share similar characteristics to enterprising individuals. It has also been argued that the process of developing entrepreneurship and a career towards self employment involves three stages: the development of enterprising behaviour; a career precipitating stage; and a stage of perception of the feasibility of self employment.

As a framework for focussing on these issues, two models have been developed. The first is a broad model for the development of enterprise, entrepreneurship and a career towards self employment which shows the major factors influencing the process. The model argues that creating the circumstances for enterprising behaviour will play a major preconditioning role for entry into entrepreneurship. The second model shows the influence of the learning process on enterprising behaviour arguing that to develop enterprising behaviour as an outcome of learning, the characteristics of teachers, learning environment and learning modes will need to be "enterprising".

The proposed testing of these models is exploratory rather than explanatory. By this it is meant that certain of the implicit assumptions in the models are to be tested, rather than the overall impact of the models themselves. Thus, in the case of the broad model for the development of enterprising behaviour and entrepreneurship, an attempt will be made: to verify the posited impact of certain key variables on enterprising behaviour; to test the relationship between enterprising behaviour and aspirations towards entrepreneurship; to test the posited influence of certain key factors on career aspirations toward entrepreneurship; and finally to test the strength of what were termed "predisposing factors" on the actual decision to set up in business. No attempt, however, will be made at this stage to weigh the various factors against each other or to test their combined influence on the process of moving into entrepreneurship.

In the case of the model for developing enterprising behaviour, the testing will be confined at this stage to the examination of a number of assumptions underpinning the model. The overall model should "predict" that if the teachers are enterprising in their approach, the learning mode is enterprising and the environment is also enterprising then the outcome will also result in enterprising student behaviour. The full testing of this central hypothesis would, however, have required a time scale or

experimental design to the research which was not possible (a point which is explored in more detail in Chapter 6).

A number of critical assumptions need however to be verified that will contribute to the ultimate testing of the model. One of the key assumptions is that enterprising students will have a distinctive approach to learning: if they do not, then it will be difficult to associate any particular approach to learning with enterprising behaviour. Another key assumption is that concerning teachers, for it has been argued earlier that enterprising teachers will themselves prefer certain styles of learning and, based upon this, certain styles of teaching. There are also assumptions underpinning the model concerning preferences of enterprising people for certain modes of learning and environment. And indeed it needs to be shown whether small business owner students are themselves enterprising, and prefer enterprising modes of learning and environment.

If, overall, enterprising students can be shown to have distinctive learning style preferences, if enterprising teachers themselves prefer certain learning styles and base their teaching styles upon these and if there is an association between enterprising behaviour and certain modes of learning and certain environments, then it will be possible to underpin the basic model with a degree of validity.

In the first instance, however, it is necessary to verify whether in respect of higher education (which is the focus of this research) the basic problems as referred to in the earlier arguments currently exist. If for example it appears that Malay students just as strongly aspire to entrepreneurship and are as enterprising as other ethnic groups then the problems which the thesis addresses may not currently exist. And if there is already a belief that the higher education sector is facilitating the development of students' enterprising behaviour and that its modes of learning are enterprising then there may be no problem there either.

To test the above, the detailed hypotheses below have been established. The hypotheses are designed for testing with students and teachers of Universities. The choice of the population and sample is discussed in detail in Chapter 6. At this stage, it is sufficient to point out that the student population consisted of first and final year business degree students and a number of business owner-managers attending "post experience" programmes. The teachers were drawn from business and entrepreneurship teaching faculties: why this is so is explained more fully in Chapter 6.

Each of the models is taken in turn and the major null hypotheses proposed for testing are examined.

2.0 MAJOR HYPOTHESES IN THE MODEL FOR THE DEVELOPMENT OF ENTERPRISE AND ENTREPRENEURSHIP

Five main sets of hypotheses in this model to be designed which are concerned with the following areas: the current assumptions in the development priorities of Malaysia; the influences on the process of developing enterprising behaviour; the link of enterprising behaviour to entrepreneurial career; career precipitating factors; and the perception of feasibility. A schematic presentation of these sets of hypotheses is shown in Table 5.1.

2.1 General Hypotheses Concerning Current Assumptions In The Development Priorities Of Malaysia

The potential role of higher education in restructuring the employment pattern, through generating enterprising graduates in general and entrepreneurial Bumiputra graduates in particular, has been recognised in the development planning of Malaysia. The restructuring of the employment pattern involves encouraging a greater number of graduates to be in the sectors where their ethnic group is under-represented. However, the attempts by the government to achieve this have not been very successful.

The underlying problem that this thesis addresses is that of the failure under successive Malaysian development plans to create a balanced employment pattern between different ethnic groups particularly in respect to business ownership and entrepreneurship. In the context of developing enterprising behaviour and entrepreneurship among higher education graduates, which is the focus of this thesis, this implies that students from different ethnic groups will have different career aspirations, namely that: Malay students will not aspire to the same degree as other ethnic groups towards entrepreneurial careers; and Chinese students will not aspire to the same degree as others towards employment in the public sector.

Furthermore, as a guide to the kinds of action be taken by higher education in developing entrepreneurship, it is fundamentally important to determine whether there is any belief that entrepreneurship can be engineered and whether it is seen as a desirable career choice among the more highly educated population.

To test whether the above problems indeed persist the following null hypotheses have been designed.

That:

- a) On the whole, the background of students indicates that there is no ethnic under-representation in the economic sectors of Malaysia.
- b) There is no association between students' future career choice (Between employed and self employed) and race.
- c) There is no association between students' future career choice in public sector organisation and race (Malays and Non Malays).
- d) There is no association between students' career choice in public sector organisation and race (Chinese and Non Chinese).
- e) On the whole, students and teachers generally perceive that entrepreneurship can be developed.
- f) On the whole, students and teachers generally have a positive perception towards entrepreneurs.

2.2 Hypotheses Concerning Influences On The Process Of Developing Enterprising and Entrepreneurship Behaviour

The first stage of the model is concerned with developing enterprising and entrepreneurship behaviour. It has been argued earlier that the development of enterprising behaviour is a pre-condition to entrepreneurship and is influenced by key variables categorised as: culture, personal background characteristics, socialisation and learning. The following null hypotheses are designed to explore the relationships between the variables in the above-mentioned categories and enterprising behaviour. These tests will provide a better understanding of the nature of the problem and the factors to be influenced.

A) Culture

The influence of culture has been argued so as to reflect the religion, race and the region from which an individual emanates. The null hypotheses are:

There is no association between students' enterprising behaviour and their:

- a) Race
- b) Religion
- c) Urban (or non-urban) background

B) Personal Background Characteristics

It has been argued earlier that certain personal background characteristics may influence enterprising behaviour, in particular gender, parent's income and parent's level of education. The null hypotheses are:

There is no association between students' enterprising behaviour and their:

- a) Gender;
- b) Parent's income;
- c) Parent's level of education

C) Learning Through Work Experience

It has been argued above that learning via work experience will have a powerful influence on the learning outcome, namely the resulting behaviour. In this respect, it is important to identify whether having entrepreneurial parents as role models alone influences enterprising behaviour and/or whether the experience of working alongside the entrepreneurial parent or other entrepreneurial role model such as a small business owner manager or the owner of small private professional practice is important. Although earlier research has concluded that entrepreneurial parent role models have important influences on aspirations to entrepreneurship, this research does not explore whether those who have entrepreneurial role models also work alongside their entrepreneurial parents and whether this is a necessary condition for them to be influenced in their behaviour and aspirations. This section (2.2 C) and the

next section (2.2 D) provide the basis for exploring the relative influences of working experience and entrepreneurial parents.

To test the influence of work experience on enterprising behaviour, the following null hypotheses have been designed:

There is no association between students' enterprising behaviour and:

a) The number of permanent job experiences.

b) Having permanent job experience in:

i) Public sector; ii) Large Business; iii) Voluntary organisation iv) Large professional practice; iv) Small professional practice; and v) Small business.

c) Length of experience in:

i) Public sector; ii) Large Business; iii) Voluntary organisation iv) Large professional practice; iv) Small professional practice; and v) Small business.

d) Having specific types of experience in:

Selling; Being in charge of other people at work; Keeping business accounts or part of the accounts; Running of an organisation of any kind; Trading of goods and services for one's own business; Trading of goods for someone else; Working alongside an independent small business owner-manager; and Working alongside an owner of a small private professional practice.

D) Socialisation

It has been argued that as a result of socialisation via entrepreneurial parent role models, a person may be more likely to be enterprising. The following null hypotheses are designed to explore the influence of having entrepreneurial parent and grandparent role models on students' enterprising behaviour.

- a) There is no association between students' enterprising behaviour and having entrepreneurial parents.
- b) There is no association between students' enterprising behaviour and having entrepreneurial grandparents.

2.3 Hypotheses Linking Enterprising Behaviour To Entrepreneurial Career Aspiration

It has been argued that enterprising behaviour is a precondition of the aspiration towards an entrepreneurship career. It has also been argued that having a business idea is one of the most, if not the most, important step in an entrepreneurial career decision.

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The following null hypotheses have been designed to explore the relationship between enterprising behaviour and an entrepreneurial career.

- a) There is no association between students' enterprising behaviour and having a business idea and wishing to start a business.
- b) There is no association between students' future career choice and their enterprising behaviour.
- c) There is no association between student's future career choice to become self employed and their enterprising behaviour.

2.4 Hypotheses Concerning Career Precipitating Factors

It has been argued that those with entrepreneurial role models would be more likely to become self employed. In addition, it has been argued earlier that an individual's career choice is influenced by: "critical agents" and perceptions of occupational work values.

There are therefore three sets of hypotheses to be tested in this section. The first set of hypotheses is to determine whether an individual with two generations of entrepreneurial background is more likely to be self employed than those without. The second set of hypotheses concerns the major "critical agents" likely to influence students' careers. Finally, the third set of hypotheses concerns the perceptions of students, teachers and small business owner-managers on the occupational values obtained by being: self employed in small business and private professional practice; employed in large business organisations; and employed in the public sector organisations.

A) The null hypotheses concerning the effect of entrepreneurial socialisation on a career in self employment are:

- a) Students with two generations of entrepreneurial background (entrepreneurial grandparent and parent) are no more likely to become self employed than those without.
- b) Students with one generation of entrepreneurial background (entrepreneurial parent) are no more likely to become self employed than those without.
- c) There is no association between entrepreneurial career choice and having experience of working alongside a small business owner-manager.

B) The null hypotheses concerning the influences on career decisions are:

- a) Parents rather than relatives, friends, mass media, primary school teachers, secondary school teachers, higher education teachers, and higher education career advisers are no more likely to influence a student's future career choice.
- b) University career advisers rather than higher education teachers are no more likely to influence students' career choice.
- c) Mass media rather than higher education teachers are no more likely to influence students' career choice.

- C) The null hypotheses concerning the perceptions of occupational values are:
- a) Students and teachers do not perceive that self employment in small business and private professional practice is more likely to offer intrinsic rewards than other organisations.
 - b) Students and teachers do not perceive that public sector organisations are more likely to offer extrinsic rewards.
 - c) Students and teachers do not perceive that large private sector organisations are more likely to offer extrinsic rewards.
 - d) Small business owner managers do not perceive that self employment in small business and private professional practice is more likely to offer both intrinsic and extrinsic rewards.
 - e) Students, teachers and small business owner managers do not generally perceive that self employment in small business and private professional practice is more likely to offer social standing and prestige.

2.5 Hypotheses Concerning The Perception of The Feasibility of Self-Employment

It has been argued earlier that being enterprising, having a business idea and being subject to certain career influences from critical agents would not be sufficient conditions to lead to self employment and thus result in starting a new business or small private professional practice. It has been argued that it is the individual's perception of the feasibility of starting a new business that finally influences him/her to become self employed. At the feasibility stage, it has been shown that there are many barriers faced by those who would like to venture into their own business. Arguably, being able to identify the major barriers will help in overcoming them. The barriers generally mentioned in the literature include lack of finance, lack of business and management skills, lack of knowledge of how to start a business, lack of advice, lack of technical or product knowledge, lack of market information and parental opposition.

The objective way of testing the link between the strength of the feasibility of ideas and the strength of aspiration towards self employment would have been to evaluate in detail each of the ideas proposed by students and examine the competencies of students via their business plan. However, time and resources did not permit such an evaluation. The student's awareness of the barriers in starting-up was therefore taken as a proxy for the strength of the feasibility of ideas. It seemed a reasonable assumption to make that students who had "thought out" the feasibility of their idea were more likely to have a realistic assessment of the barriers to starting up and an assessment nearer to that of business owner-managers. The reality of students' perceptions was therefore tested by comparing them with those of small business owner-managers. Arguably those students who had committed themselves to an entrepreneurial career will have a more "realistic" view of the barriers than others and enterprising students may have more realistic ideas of barriers than non-enterprising students.

The null hypotheses therefore are that:

- a) On the whole, there is no distinction between the major barriers perceived by students who have chosen entrepreneurial careers and small business owner-managers.
- b) On the whole, there is no difference in the perception of entrepreneurial and non-entrepreneurial students as to the major barriers of starting a small business.

3.0 MAJOR HYPOTHESES IN THE LEARNING MODEL FOR DEVELOPING ENTERPRISING BEHAVIOUR

3.1. Hypotheses Concerning The Problems And Their Nature Related To Learning In Higher Education In Malaysia

It has been shown earlier that higher education in Malaysia was expected to generate enterprising and entrepreneurial students. It has been argued that historically it

would seem to have failed so to do. It is, however, necessary to determine if the problem still exists, and its nature.

The key questions relating to the problem are: i) Is higher education considered a place where students can develop their enterprising behaviour and develop the necessary elements of an "enterprising" approach ? ii) Are there mismatches between students and teachers expectations on major aspects of the learning outcome and process?

The following null hypotheses have been designed to test hypotheses concerning the problems related to learning at higher education and their nature are:

- a) There is generally no difference in the expectation of new students and teachers on the extent of the competencies relevant to enterprising behaviour to be acquired in higher education.
- b) There is generally no difference in the extent of the competencies acquired by graduating students from the expectation of new students and teachers.
- c) There is no difference between the expectation of students and teachers on the following learning modes practised in higher education:
 - Learning objectives are negotiated with students rather than determined by teachers.
 - Curriculum emphasis on practice, "hands on experience" and process rather than emphasis on theory and knowledge.
 - Role of teacher as facilitator who also learns rather than as an expert who hands down knowledge.
 - Role of students as generators of knowledge rather than as learners who are receiving knowledge.
 - Teaching methods used are negotiated with students rather than chosen by teachers.

- Learning by doing rather than learning in the classroom.
- Teaching sessions are unstructured and flexible rather than structured and inflexible.
- Evaluation of success in learning is measured by self-development rather than by examination grades.

3.2 Hypotheses Concerning Students

In the learning model developed earlier, the students are effectively the key customer group of higher education and subject to influences from teachers, the learning modes and the environment. In the earlier argument it was shown that certain factors (external to the university) will influence whether or not students are enterprising in their behaviour. It is however, highly unlikely that universities will wish to restrict, via selection and recruitment, the intake of students to only those who are considered as enterprising. The key issue therefore is whether more can be done to assist students of the university in general to be enterprising. To do this, it is first necessary to determine whether there are any distinctive ways in which the more enterprising students would wish to learn.

It has been argued earlier that enterprising individuals will have a preference for certain learning styles. This needs to be validated. The study therefore seeks to determine whether there are distinctive learning style preferences of enterprising students (including small business owner-managers). If there are certain learning styles associated with enterprising individuals, this will be of value in:

- a) Predicting learning difficulties and helping teachers or trainers to alleviate or avoid student learning difficulties;
- b) Assisting students to improve their learning by getting them to plan the expansion of their learning styles;

- c) Helping teachers or trainers to allocate roles in learning exercises;
- d) Helping trainers to constitute groups, teams or syndicates by putting together learners who can blend their different strengths to form a coherent team.
- e) Helping teachers adapt their teaching methods to the learning styles of enterprising individuals.

Overall, understanding the preferred learning style of enterprising students and small business owner-managers will help teachers and trainers to meet their learning needs and hypothetically to be in a better position to encourage enterprising behaviour.

To test the above, the following null hypotheses are suggested:

- a) There is no significant relationship between the enterprising behaviour of students and their preferred learning styles.
- b) There is no significant relationship between the enterprising behaviour of small business owner-managers and their preferred learning styles.
- c) There is no difference in the preferred learning styles of enterprising students and small business owner-managers.

3.3 Hypotheses Concerning Teachers

One of the key teacher's characteristics argued to have influence on a teachers' teaching methods and techniques is their own preferred learning style. Since teacher's preference for a certain learning style has been shown to be reflected in their teaching methods used, it is argued that enterprising teachers would prefer certain enterprising teaching modes.

The null hypotheses designed to test the relationships between enterprising teachers and their preferred learning styles and teaching modes are:

- a) There is no relationship between teachers' enterprising behaviour and their preferred learning styles.
- b) There is no relationship between teachers' enterprising behaviour and the following teaching methods:

Lectures, case studies, role playing, programmed learning, written assignments, real problem simulations, business games and other competitive exercises, project work on real problems, observing a group at work, field studies or trips, watching films or video, and the uses of small business owner-managers, civil servants, corporate managers, owners of small private professional practices as guest speakers/lecturers.

3.4 Hypotheses Concerning Learning Modes

It has been argued that enterprising individuals will prefer enterprising learning modes and that therefore enterprising students and possibly small business owner managers will prefer such modes.

To test whether certain learning modes are preferred by enterprising students and small business owner managers, the following null hypotheses are suggested:

There is no relationship between students' enterprising behaviour and their preference for:

- a) Learning objectives to be negotiated students rather than determined by teachers.

- b) Curriculum emphasis on practice, "hands on experience" and process rather than emphasis on theory and knowledge.
- c) Role of teacher as facilitator who also learns rather than as an expert who hands down knowledge.
- d) Role of students as generators of knowledge rather than as learner who are receiving knowledge.
- e) Teaching methods used are negotiated with students rather than chosen by teachers.
- f) Learning by doing rather than learning in the classroom.
- g) Teaching sessions are unstructured and flexible rather than structured and inflexible.
- h) Evaluation of success in learning to be measured by self-development rather than by examination grades.

3.5 Hypotheses Concerning Learning Environment

It has been argued that an environment that is conducive to learning and teaching for the development of enterprising behaviour is an environment which provides students and teachers with the opportunity and the incentive to become enterprising.

An objective assessment of the learning environment in the institutions was not possible given the limited time and resources. Some exploratory discussion did, however, take place which led to the conclusion that a full objective assessment would not be possible under the constraints of this research. In the first instance therefore it was decided to focus solely on students' and teachers' perception of the environment. This was designed to test whether in reality there were differences in perceptions between students and teachers; and whether distinctly different views were held by more enterprising students from others.

To test these assumptions, the following null hypotheses are designed:

a) There is no difference in the perception of graduating students and teachers that their "College/university is enterprising".

b) There is no difference in the perception of graduating students and teachers that their "Department/School is enterprising at different higher education institutions".

c) There is no association between students' enterprising behaviour and their perception of the learning environment.

CHAPTER SIX

RESEARCH DESIGN AND METHODOLOGY

1.0 INTRODUCTION

The choice of the basic research design is discussed further in this chapter and in particular the issue touched upon in Chapter 5 of the choice of explanatory or exploratory designs. Since the research is focused upon enterprise and entrepreneurship in higher education in Malaysia, the populations of teachers and students at higher educational institutions are considered. The rationale for choosing the research instruments, the reliability test of the instruments, the pilot test and the final administration of the instruments are described. The final section sets out the data organising procedure and the statistical methods employed to test the hypotheses.

2.0 THE RESEARCH DESIGN

The research design is the plan and structure of the investigation used to test the hypotheses set out in the preceding chapter. There are many ways of classifying types of research design. McMillan and Schumacher (1989) for example, classify research design into four major types: experimental, non-experimental, ex-post facto and qualitative. In experimental design, the researcher manipulates what the subjects will experience and has some control over what will happen to the subjects by systematically imposing or withholding specified conditions. Experimental design aims at investigating cause-and-effect relationships between manipulated conditions and measured outcomes. Unlike experimental design, there is no manipulation of conditions in non-experimental design. In addition, non-experimental design does not show cause-and-effect relationships. Non-experimental design includes descriptive, correlational and survey research. Ex

post facto research too is sometimes classified in the non experimental design category (Cohen and Manion, 1986). Ex-post facto research has been defined as research in which the independent variable or variables have already occurred and the researcher starts with the observation of a dependent variable or variables with a view to finding their possible relationship to and effects upon the dependent variable or variables retrospectively (Kerlinger, 1970). Qualitative research, on the other hand, is less structured than quantitative research and the specific procedures followed are often identified during the research rather than specified in advance. Qualitative research design includes case study and ethnographic design research.

The choice of the most appropriate design or combination of designs for this study was, as in all research, based upon the circumstances and resources available. The choice of research design is related to the research purpose, which is either exploratory or explanatory or both, and seeks to contribute to empirical knowledge and to the development of theory (Pauline et al., 1982). Although both types are argued as contributing to empirical knowledge, each approach, arguably, has a more specific objective. The reason for choosing an exploratory approach, Pauline et al. (1982) suggest, is because of "*a lack of previously developed knowledge, theory, or method*" which makes it difficult to design specific hypotheses (p.354). They suggest that explanatory research is "*essentially deductive, intended to verify causes and relationships between phenomena*" (p. 355).

The two models developed earlier are to be applied to the issues of enterprising behaviour and entrepreneurship in respect of higher education. The best design would seem to be the one that can help to identify and measure the factors influencing the development of enterprising behaviour within the model. The measurement of this among students in higher education would ideally require data to be gathered over an

extended period of time up to a maximum of four years relating to their time spent in higher education. It would be normal for such an investigation to take successive measures of the development of students' enterprising behaviour at different points of time from the same respondents. This would require a cohort study. In addition, the determination of the cause-and-effect of each of the factors influencing enterprising behaviour would generally require a change in the value of one or more of the factors influencing enterprising behaviour and the observation of the effect of the change on the dependent variable. The experimental method is said to be "*clearly the best approach for determining the causal effect of an isolated, single variable*" (McMillan and Schumacher, 1989 p.304).

A cohort experimental research design would therefore be the most appropriate design for the study. To undertake a cohort study of the development of students' enterprising behaviour in higher education would, however, require a time of up to four years. In addition, an experimental design would require administering a "*treatment*" to one group while withholding it from another group in order to establish the cause and effect relationship which entails the necessity of a pre-test and post-test control group. The manipulation of subjects by the introduction of a "*treatment*" and the evaluation of the subjects' response to this "*treatment*" is difficult, time consuming and costly. It was not possible to meet either of the above conditions. The nature of this study is therefore exploratory and a non-experimental research design has been chosen. Although a non-experimental research design does not provide compelling evidence with regard to a cause and effect relationship, it is however useful for demonstrating the existence of relationships. The key objective of the approach adopted was to prepare the ground for future experimental research which might explore more fully, when time, resources and circumstances permit, the causality of relationships.

3.0 POPULATION AND SAMPLING PROCEDURE

Since this study is concerned with developing enterprising and entrepreneurial graduates and the influence of the learning processes on enterprising behaviour in higher education in Malaysia, the selection of "*relevant*" respondents or subjects (Bryman and Cramer, 1990), needed to include teachers and students from higher education institutions in Malaysia. In this respect, a number of choices were available. The first alternative was to take a representative sample of students and teachers from all higher education institutions. After discussing this with key administrative staff at most of these institutions, this option was deemed not only to require enormous resources and time but more importantly would also be administratively difficult to manage. A second option was to select universities which had departments or faculties that placed some emphasis on both the development of enterprise and entrepreneurship. The option was considered promising because not only was this emphasis related to the issue the thesis was addressing, but also of equal importance was that if such departments of universities were not at the leading edge of developing enterprising and entrepreneurial graduates then the rest of the university would have been less likely to do so. The opinion of a number of deans and directors of departments in the five universities was sought on this issue. Most agreed that business schools or faculties that were supported by a department or centre for small business/entrepreneurship would indicate some emphasis of the university on both the development of enterprise and entrepreneurship.

The next stage was to determine which populations were "*relevant*" to the study which is concerned with developing enterprising behaviour and entrepreneurship in higher education. It has been argued earlier (Chapter 2) that business schools graduates are generally perceived as being better prepared than other graduates to venture into their

own business. It was deemed reasonable that business schools supported by a centre for entrepreneurship or small business would be more likely to provide a stronger focus for the support of entrepreneurship education. It is for these reasons that business schools or faculties which were supported by a centre for entrepreneurship or small business were taken as the population. A business school here refers to the school or faculty at a higher education institution which offers business and accountancy degrees or the equivalent.

Among all the local higher education institutions in Malaysia, there are six which have a business school; namely: The Northern University of Malaysia (Universiti Utara Malaysia), National University of Malaysia (Universiti Kebangsaan Malaysia), University of Agriculture (Universiti Pertanian Malaysia), University of Malaya, Tunku Abdul Rahman College and the MARA Institute of Technology (Institut Teknologi Mara or ITM). However, only at the Northern University, University of Agriculture and MARA Institute of Technology, are the the business schools supported by a unit which is concerned with enterprise and entrepreneurship development. For example, the Northern University is supported by the Business and Entrepreneurship Development Centre; The University of Agriculture is supported by the Small Business Centre and the MARA Institute of Technology (known as ITM in Malaysia) is supported by the Malaysian Entrepreneurial Development Centre. Moreover, with the exception of ITM, most of the teachers serving in these centres are from the Business Schools. At ITM, however, most if not all of the teachers teaching entrepreneurship courses are from the Malaysian Entrepreneurial Development Centre. If the presence of the small business or entrepreneurship support unit is an indication of the university's emphasis upon the development of enterprising and entrepreneurship behaviour, then the choice of the business schools at these three higher education institutions would seem to be the most appropriate for the study. Thus, the population of the study consists of students and

teachers from these Business Schools. For comparison purposes, the small business owner-managers who were participants in entrepreneurship development programmes at the higher education institutions were included in the samples.

The Northern University, University of Agriculture and ITM which offer generally similar programmes in business and accountancy at the first degree level or equivalent, were established with different emphases. For example, the Northern University is "*management based*" and the University of Agriculture is "*agricultural based*". On the other hand, ITM is "*Bumiputra based*" where all the students are Malays and other indigenous groups.

Although constraining the selection of students and teachers to business schools at three higher education institutions in Malaysia means that the student and teacher samples are not representative of university students and staff as a whole, there were strong reasons to support the choice of the above "*relevant*" samples in this study. In summary therefore the business schools chosen had two key factors in common. The development of enterprise and entrepreneurship at the higher education level was of particular concern to them and they ran more or less similar programmes in business and accountancy.

3.1 Sample

It has been argued earlier that to provide an accurate estimate of the characteristics of a population, a representative sample must resemble the population as closely as possible; this may be achieved through probability sampling (Som, 1973). In addition, it is possible to increase the precision of estimates via a process of stratified sampling. As Fowler (1988) suggests, "*stratification only increases the precision of estimates of variables*

to which the stratification variables are related" (p. 25). Cochran (1977) also suggests that if "data of known precision with certain precision are wanted for certain subdivisions of the population" a stratified sampling technique is more appropriate. Cochran (1977) further suggests that there are many reasons for stratification.

"If data of known precision are wanted for certain subdivisions of the population, it is advisable to treat each subdivision as a 'population' in its own right. Sampling problems may differ markedly in different parts of the population. Stratification may produce a gain in precision in the estimates of characteristics of the whole population" (Cochran, 1977 p. 89).

It was mainly for these reasons that the strata parameters for student's and teacher's samples were taken as: new and graduating students from the business and accountancy programmes; and teachers from business and accountancy programmes. There were particular reasons for the choice of new and graduating students in the samples. New students were selected because their expectations would be relatively untainted by experience in higher education and could be compared fruitfully with teachers' expectations. Graduating students on the other hand, had learning experience in higher education and therefore would be in a better position to make judgements on the learning modes practised at higher education based on their experience. This assessment could then be compared with new students expectations. Furthermore, there were institutions which ran two-year degree equivalent programmes. In this case, sampling first year (new students) and graduating students in the programmes meant that the samples were taken from the total population of students of particular programmes.

A next step was to determine the size of the samples of students and teachers. Although there is seldom a precise answer about how large a sample should be for a given study, if it is too small, it may affect the generalizability of the study (Fowler, 1988). In this respect, Gay (1976) provides some useful guide-lines.

"In general, the minimum number of subjects believed to be acceptable for a study depends upon the type of research involved. For descriptive research, a sample of 10% of the population is considered minimum. For smaller population, 20% may be required. For correlational studies at least 30 subjects are needed to establish the existence or nonexistence of a relationship. For causal-comparative and experimental studies, a minimum of 15 subjects per group will give some degree of confidence that conclusions reached concerning differences between groups are valid one" (p. 77).

Like Gay (1976), McMillan and Schumacher (1989) also provide more or less similar suggestions that the determination of sample size should take into consideration several factors such as the type of research, research hypotheses, financial constraints, the importance of the results, the number of variables studied, the methods of data collection, and the degree of accuracy needed. However, Hoinville et al. (1983) suggests *"deciding what sample size to use is almost always a matter more of judgement than of calculation"* (p.61). Based upon judgement and some of Gay's suggestions, the following procedures of random sampling were followed.

a) Sample of Students:

Through random sampling, a sample of 30 new and 30 graduating students was taken from each of the business and accountancy programmes in each of the three universities. If the population size was less than thirty, the total number in the population was taken as the sample. In all, a total of 393 students (25% sample) were sampled from the total number (1570 students) of Business Schools' students. In addition, all the 14 small business owner-managers who were just beginning to attend entrepreneurship development programmes at the higher educational institutions were drawn into the sample. Although the number of small business owner-managers was too small to be able to generalize in the context of a wider population of small business-owner managers in Malaysia, it was thought that their characteristics in terms of

enterprising behaviour and their preferred learning style in particular, might provide some useful insights when comparing them with those of teachers and other students. It is important to note that the response rate among students and small business owner-managers was 100 per cent (N=407; Table 6.1).

Table 6.1: Sample Of Students And Small Business Owner-managers In Higher Education

Programmes	Northern University	University of Agriculture	ITM	Total
Business:				
-New Students	30	30	30	90
-Graduating Students	30	30	30	90
Accountancy:				
-New Students: Adv. Dip/Deg. Professional	30 -	30 -	30 30	90 30
-Graduating Students: Adv. Dip/Deg. Professional	30 -	30 -	30 3	90 3
Small Business Owner-Managers	-	-	14	14
Total	120	120	167	407

Note: "Adv. Dip/Deg." means Advance Diploma or Degree

b) Sample of Teachers

It was initially intended that thirty teachers made up of ten from each of the business, accountancy and entrepreneurship or small business departments in each of the three institutions be selected through random sampling, making a total of ninety. However,

there were two problems. The first was that the total number of teachers attached to each programme at the University of Agriculture was less than ten. Secondly, unlike at ITM, there were no specialist entrepreneurship teachers attached solely to the programme at the Northern University and University of Agriculture; entrepreneurship was taught by the Business School staff. However, these teachers who taught entrepreneurship were included in the sample of "business" lecturers.

The samples of teachers selected through random sampling and interviewed (in bracket) were therefore as in Table 6.2:

Table 6.2: Sample of Higher Education Teachers By Programmes

Programmes	Northern University	University of Agriculture	ITM	Total
Accountancy	10(10)	5(4)	10(10)	25(24)
Business	10(10)	5(5)	10(10)	25(25)
Entrepreneurship	-	-	10(8)	10(8)
Total	20(20)	10(9)	30(28)	60(57)

Sixty teachers were therefore drawn from the population of 138 teachers at the Business School in the business, accountancy and entrepreneurship programmes. However, only 57 teachers (95 per cent) responded to the interview.

4.0 INSTRUMENTS

To meet the objectives of the research, information covering three key areas needed to be collected. Information on students' and small business owner-managers' background, career aspirations and learning experience could be collected by questionnaire.

Information on the preferred learning styles of students and small business owner-managers needed to be collected via a special tested instruments. Finally, there had to be a measure for enterprising behaviour. To obtain these information, three instruments were selected for application to the samples of students and small business-owner managers. These were:

- a) the Main Student's Questionnaire (MSQ) (Appendix 2a; Malay Translation - Appendix 2b);
- b) the Learning Styles Questionnaire (Honey and Mumford, 1986) (Appendix 3a; Malay Translation - Appendix 3b); and
- c) the General Enterprising Tendency (GET) Test (Durham University Business School, 1988) (Appendix 4a; Malay Translation - Appendix 4b).

Similarly, three instruments were also administered to teachers in the sample:

- a) the Main Lecturer's Questionnaire (MLQ) (Appendix 5);
- b) the Learning Styles Questionnaire (Honey and Mumford, 1986) (Appendix 3b - Malay Translation); and
- c) the General Enterprising Tendency Test (Durham University Business School, 1988) (Appendix 4b - Malay Translation).

4.1 Design of Instruments

The major purpose of each of the instruments and the sections of MSQ and MLQ is summarized below in Table 6.3.

Table 6.3 : The Instruments And Their Major Purpose

Purpose Of Questions (To Gain Information On):	Students and Small Business Owner-Mgrs (Instruments)	Lecturers (Instruments)
	MSQ	MLQ
Personal Background	Section A: Questions 1,2,5 Section E: Questions 1 to 5	Section A: Questions 3,4,7 Section E Questions 1 to 5
Culture	Section A: Questions 3,4,6	Section A: Questions 5,6
Socialisation	Section E: Question 4	Section E: Question 4
Learning	Section B: Questions 1 to 4 Section C: Questions 1 to 4 Section D: Questions 1 to 3	Section D Questions 1 to 3
Career Aspirations	Section F Questions 1, 3	Section F Questions 2,4
Business Idea	Section F Questions 6,7	Section F Questions 6,7
Career Decision Influence	Section F Questions 2, 8	Section F Question 1
Career Precipitating	Section F Question 5	Section F Question 8
Enterprising Competencies	Section G Questions 1,3	Section G Question 1
Learning Modes	Section G Questions 2,4	Section G Question 2
Teaching Modes	-	Section G Question 3
Perception Of Learning Environment	Section H Question 1	Section I Question 1
Perception Of Entrepreneurs	Section G Question 5	Section H Question 1
Enterprising Behaviour	GET Test Questions 1 to 54	GET Test Questions 1 to 54
Preferred Learning Styles	LSQ Questions 1 to 80	LSQ Questions 1 to 80

4.2 Questionnaire Design

The Main Students Questionnaire (MSQ) and Main Lecturers Questionnaire (MLQ) began with a short introduction on the general purpose of the investigation. Then, an assurance was given on the confidentiality of the information obtained in the instruments that had been administered.

Most of the questions in MSQ and MLQ were closed questions with check-lists and rating scales where the respondents were offered a choice of alternative replies. These closed questions were designed to be easy and quick to answer by students, small business owner-managers and teachers. The closed questions could be divided into questions of fact (e.g. race and religion) and questions of perception. The closed questions were arrived at via a process of pilot test using initially a wider framework of open questions. Using the pilot answers it was found possible to close some of the questions. Nevertheless it is recognised that the process prescribed limits upon the information received. The pilot test is described later in this Chapter.

The MSQ and MLQ began with simple questions regarding personal background data and followed by questions which sought information on: their previous work experience; their parents, spouse, guardian, relatives and friends; career choice; perception of occupational values; perception of students learning modes; perception of entrepreneurs; and finally their assessment of the enterprising tendency of their college and department. The detailed questions in each of the sections are quite clear in the schedules (Appendices 2a and 5).

4.3 Instrument To Assess Preferred Learning Style

Several learning style instruments developed to assess individuals' preferred learning styles were examined. The instruments differ in length, reliability and conceptualization of learning styles. The Grasha-Riechmann Student Learning Style Scales were developed to assess the following six learning styles conceptualized by Grasha (Kraft, 1976): "*Independent, Avoidant, Collaborative, Dependent, Avoidant, Collaborative, Dependent, Competitive and Participative*". The instrument is a 90-item self report scale and has a test-retest reliability of 0.79-0.83. Another learning style instrument commonly used is the Dunn Learning Style Inventory (Dunn et al., 1975). The instrument consists of 104 items and designed for upper elementary schools. The "*Cronbach alpha*" reliability was 0.30-0.70. However, among the most commonly used learning style instruments are Kolb Learning Styles Inventory (Kolb, 1979) and Honey and Mumford Learning Styles Questionnaire (Honey and Mumford, 1986).

Kolb's Learning Style Inventory (LSI) has nine sets of four words which are rank ordered by the subject. The learning styles are conceptualized as: "*Concrete experience, Reflective Observation, Abstract conceptualization, and Active experimentation*" (Kolb, 1979). The result of the test-retest reliability was 0.30-0.71 (Ferrel, 1983). However, the original LSI was criticized heavily for being an unreliable instrument (Freedman and Stumpf, 1978, 1980; Merritt and Marshall, 1984; Sims et al. 1986). The revised version of LSI, although it was claimed to be reliable (Smith and Kolb, 1986), was found to have a low test-retest reliability (Atkinson, 1989).

Honey and Mumford Learning Styles Questionnaires (LSQ) has eighty true and false items. The learning styles are conceptualized as "*Activist, Reflector, Theorist and Pragmatist*". The test-retest reliability is 0.89 (Honey and Mumford, 1986).

Reviewing the above learning styles instruments, the Learning Styles Questionnaire (LSQ) developed by Honey and Mumford (1986) was adopted for this study for the following reasons: Firstly, it was reported that the test-retest reliability result was very satisfactory (Honey and Mumford, 1986); Secondly, the revised Learning Style Questionnaire had been modified to eliminate English slang or colloquialisms thus enabling it to be understood by individuals from different cultures; Thirdly, it was reported that the instrument had been used in Malaysia; Fourthly, the LSQ was simple and easy to administer.

The Learning Styles Questionnaires (LSQ) began with a short introduction of the purpose of the instruments. The LSQ contained eighty closed questions where the respondents had to tick either a "Agree" or "Disagree" answer. The detailed items of LSQ are shown in Appendix 3a.

4.4 Selecting An Instrument To Measure Enterprising Behaviour

Measuring behaviour has long been an unresolved issue (Bogardus, 1925; Triandis, 1964; Lake, et al., 1973; Reitz, 1977). Cattell (1965) has stressed that considerable time is required to measure behaviour adequately. Measuring behaviour, according to (Cattell, 1965) involves observations of behaviour in situations where the testee is not aware of the significance of his behaviour to the tester. Due to the constraints of time and resources to observe enterprising behaviour and the unavailability of an instrument to measure enterprising behaviour objectively, the decision was taken to use the General Enterprising Tendency (GET Test) as a proxy for measuring enterprising behaviour. The decision to use the General Enterprising Tendency (GET) Test was

taken after a review of several instruments that were available for measuring enterprising behaviour.

Since it has been argued that enterprising individuals and entrepreneurs share similar characteristics, many other test instruments related to measuring entrepreneurship behaviour were reviewed, paying particular attention to their validity and reliability not only to Western culture but more importantly to the Malaysian culture. Researchers have used a variety of measuring instruments which were arguably developed for purposes other than to measure entrepreneurship (Sexton and Bowman, 1984; Wortman, 1986). Although there are many studies of entrepreneurship which utilise such test instruments to measure entrepreneurship, Sexton and Bowman (1986) contend that the test instruments adopted are of *"unproven or questionable validity and/or reliability, and had little consistency with regard to the definition of entrepreneur"* (p. 42-43). As a result, Sexton and Bowman (1986) developed a test instrument based on the Jackson Personality Inventory (JPI) and the Personality Research Form-E (PRF-E) but modified it to include only those factors which were found to be significantly different in their earlier studies (Sexton and Bowman, 1984). Sexton and Bowman (1986) validated the modified JPI/PRF-E test instrument which they claim is able to differentiate psychological characteristics unique to entrepreneurs.

The investigations carried out by Sexton and Bowman (1984, 1986) seemed to make the modified JPI/PRF-E test instrument rather promising for this study. Besides, both the JPI and PRF-E had been developed and had undergone extensive evaluations to prove their validity and reliability (Jackson, 1974, 1976). Wiggins (1973) in his evaluation Personality Research Form, for example, describes:

"unquestionably the best example of a large-scale personality inventory developed under the construct point of view The PRF-E is the only multitrait personality inventory whose

development was guided explicitly by the substantive, structural, and external considerations of the construct viewpoint" (p. 409).

As a result, further information was sought on the reliability and validity of the modified JPI/PRF-E with reference to other cultures, particularly the Malaysian culture. Professor Sexton was contacted to seek clarification and information on the instrument's reliability and validity in this respect. Unfortunately, Professor Sexton's reply indicated that the modified JPI/PRF-E instrument is culturally biased:

"I would like to point out that the test seems to have cultural bias. We have used it to test Malaysian, Brazilian, and French businessmen. The results are mixed and unexplainable" (Sexton, 1990 Note 1).

The General Enterprising Tendency Test, developed by Durham University Business School has been designed to assess the enterprising tendency of an individual. The test is designed to measure a number of personal "*tendencies*" generally associated with enterprising individuals. These tendencies include: need for achievement, need for autonomy, creative tendency, risk taking, and drive and determination. The instrument consists of 54 short statements requiring an "*agree*" or "*disagree*" response. The test had been validated with a number of different groups of persons (Caird, 1988) and improved accordingly (Durham University Business School, 1988). What is important is that the criterion validity of the instrument had been established and the internal consistency had been confirmed (Caird, 1988). The test has also been conducted on entrepreneurs, nurses, teachers, lecturers, trainers, students and civil servants from the U.K. and Nigeria. Since it has been tested on Nigerian teachers, there was some evidence to show that the instrument had taken into account the importance of overcoming "*cultural*" bias in its design. The validation revealed the validity and internal consistency of the instrument (Caird, 1988). The instrument has also been used in research for developing enterprising graduates (Kirby and Mullen, 1990) and is currently being used for research into entrepreneurship and small business in Ireland

(Note 2). A full description of the development of the instruments has been extensively discussed in the *International Small Business Journal* (Caird, 1991). Furthermore, the instrument has also been used to measure enterprise in research which was reported in the *International Small Business Journal* and *British Journal of Management* (Caird, 1991). The GET Test was designed following an extensive review of the research literature (Caird, 1988).

There are two major limitations in utilising the GET Test to measure enterprising behaviour. Firstly, the instrument has never been tested in a Malaysian context and may have cultural bias. Secondly, the instrument has never been tested for its stability. To overcome these limitations, the instrument was translated and a test-retest reliability was undertaken in Malaysia. The result of the test and the subsequent amendments made are discussed more fully later in this chapter.

5.0 PRELIMINARY AND MAIN PILOT TESTS

Before reaching the stage of administering the instruments in the main study the following steps were undertaken:

- a. Preliminary pilot study on teachers
- b. Translation of the instruments and improvements
- c. Preliminary pilot study on students
- d. Main pilot test

5.1 Preliminary Pilot Study On Teachers

A preliminary pilot study on teachers was carried out to refine the wording, ordering and layout of the Main Lecturer's Questionnaire (MLQ). In addition, it also helped to

prune the questionnaire to a manageable length by noting the time taken by the respondents in answering the Main Lecturer's Questionnaire, the Learning Styles Questionnaire and the General Enterprising Tendency Test.

A total of 3 Business School lecturers at Durham University Business School and 3 Malaysian university lecturers who were on study leave at Bradford University were selected. The three instruments were administered on them. The lecturers comments on the questionnaires were noted. The wording, layout and ordering of the questions were improved upon. The questionnaires were then pruned to a more manageable length.

5.2 Translation Of The Instruments And Improvements

In Malaysia, it was possible to interview teachers at higher education institutions in English, however, as Lewin (1990) points out, instruments designed in English are not advised to be administered on non-English students some of whom may not be well versed in English. Hence the Main Students Questionnaire (Appendix 2b), the Learning Style Questionnaire (Appendix 3b) and the General Enterprising Tendency Test (Appendix 4b) were translated into Malay, the common language, which was understandable by all students, small business owner-managers and teachers. However, as Lewin (1990) had found, translating from English to Malay could also be problematic and thus the assistance of professional translators had to be used.

To ensure that the translation of the instruments was professionally done, the assistance of the Dean and the translation teachers of the School of Languages and Scientific Thinking at the Northern University of Malaysia was sought. As a result, three teachers who were teaching translation courses in the School were recommended by the Dean to

help in the translation. Besides approaching these teachers personally, they were also officially contacted by the office of the Dean. With the help of these three teachers, the Main Students Questionnaire, the Learning Style Questionnaire (LSQ) and the General Enterprising Tendency (GET) Test were translated from English into Malay.

To further ensure that the translation of LSQ and GET Test were done in simple Malay, the two translated instruments were administered to 45 secondary school students at Sekolah Menengah Syed Sirajuddin, Jejawi, in the State of Perlis. The permission of the head teacher and the class teacher were obtained for the purpose. A discussion was held to identify the statements in the instruments which were difficult to understand particularly due to certain uncommon terminologies used. The feedback from the discussions was recorded on tape and this proved to be very valuable in improving the translation of the instruments into simple Malay.

5.3 Preliminary Pilot Study On Students

The preliminary pilot test on students was carried out by administering the translated Main Students Questionnaire, the improved Malay version of the Learning Style Questionnaire and the General Enterprising Tendency Test on 35 Matriculation Students at the Northern University of Malaysia and 35 Matriculation students at Mara Science Junior College, Kulim. As a result of the pilot test, there was one important item in the General Enterprising Tendency Test which was found to be culturally biased. Statement nine of the GET Test which stated "*If I had to gamble £1, I would rather buy a raffle ticket than play cards*" obtained a common answer. Since gambling is absolutely socially undesirable in the eyes of the society, it was not surprising to find a similar answer from all the respondents in this pilot test. The opinion of a number of senior researchers in testing at other local universities was taken regarding the

replacement of this item to ensure its validity. As a result, the statement was amended to "*If I have \$1000, I would be more likely to place it in a saving account/'Amanah Saham Nasional'* rather than start a very small business" in order to take account of the social undesirability of the original statement. In addition, the wording, layout and ordering of the questions in the Main Students Questionnaire were improved upon and shortened to a manageable length.

5.4 The Main Pilot Test

In the main pilot test twenty teachers and sixty new and graduating students in the business and accountancy department at the Perlis Branch Campus of ITM were chosen at random to participate. The following steps were taken. Firstly, the Learning Styles Questionnaires and General Enterprising Tendency Test were administered in a room. Then, they were divided into smaller groups for group structured interviews at scheduled times using the Main Students Questionnaire. Similarly, the same steps were also followed in the application of the Main Students Questionnaire, the Learning Styles Questionnaire and the General Enterprising Tendency Test. The pilot test assisted in planning the full procedures for carrying out interviews and administering the two instruments. The pilot test also provided the length of time required to complete the main students questionnaire and the two instruments. Minor amendments were made to the instruments in the main pilot test and it highlighted certain administrative procedures that needed clarification.

6.0 TEST-RETEST RELIABILITY

Although the General Enterprising Tendency Test has been validated (Caird, 1988), the instrument had never been tested for its stability. Thus, a test-retest reliability was

required in order to assess the translated instrument's ability to measure the consistency of stable characteristics over a period of time. The procedure for the test-retest reliability consisted of administering the same instrument to the same individuals over a period of time. The sets of scores were then correlated. If the resulting coefficient of correlation was high, the test had a good test-retest reliability.

To conduct the test-retest reliability of the General Enterprising Tendency Test, a group of 31 accountancy and business students at ITM, Perlis Branch Campus were randomly selected. The General Enterprising Tendency instrument was administered to these students. To facilitate the test-retest reliability statistical analysis, each of the students had to write their college identity number on the instrument. A week later, the same instrument was again being administered to the same students. The results of the first and second tests were processed through the SPSS-X programme to determine the coefficients of stability of the test.

The coefficients of stability, through test-retest reliability, is 0.8537 which indicates that the General Enterprising Tendency Test is a reliable instrument in terms of its stability. The detailed coefficients of stability for component variables of enterprise are presented in Table 6.4, below.

Table 6.4: Test-Retest Reliability- Detail Coefficients of Stability of GET Test

Component Variables of Test	Coefficient of Stability
Need for achievement	0.7814
Need for autonomy	0.8502
Creative tendency	0.8249
Calculated risk taking	0.7160
Drive and determination	0.7642
General Enterprising Tendency	0.8537

The coefficients of stability for the items used to measure the following components of enterprising tendency are as follows: need for achievement, 0.7814; need for autonomy, 0.8502; creative tendency, 0.8249; calculated risk taking, 0.7160; and drive and determination, 0.7642; general enterprising tendency, 0.8537).

To measure the extent of internal consistency of the items used in the test, the current widely used Cronbach's alpha was utilised (Bryman and Cramer, 1990). To determine the Cronbach alpha for the test, the SPSS-X programme for reliability testing was used. The Cronbach's alpha for the test was 0.7822. Although the rule of thumb suggested by Bryman and Cramer (1990) to test for reliability is 0.8 or above, the General Enterprising Tendency Test has achieved a rather remarkable reliability (Cronbach Alpha of 0.782) in terms of internal consistency and stability (Coefficient of Stability of 0.8537).

7.0 DATA COLLECTION TECHNIQUES AND NEGOTIATING ACCESS

Research involves gathering information about the variables in the study. Although there were a wide range of techniques and approaches which could be used in collecting data from the respondents, each method had its own advantages and disadvantages. In this study, the methods used were questionnaires and tests.

The questionnaire method is relatively economical, questions can be written for a definite purpose and the anonymity of respondents ensured. Oppenheim (1972) suggests some useful guide-lines for writing questionnaires in order to ensure clarity, avoidance of double-barrelled items, and to avoid biased responses particularly with respect to the social desirability of the response.

Use of the questionnaire method in research carries the risk of non-response. Since failure to collect data from a high percentage of those selected in the sample could be a major source of survey error, every attempt was made to reduce this. In addition, Gay's (1976) warning that "*securing administrative approval to involve students in a study is not generally easy*" (p. 79) was taken very seriously. To overcome these challenges, special efforts were made to obtain accessibility to administer all the instruments to the students, teachers and small business owner-managers at the Northern University, University of Agriculture and ITM.

Undertaking educational research in developing countries can be challenging and sometimes frustrating (Vulliamy et al., 1990). Negotiating access, in particular, posed some tremendous challenges to the researcher. Stephens (1990) puts forward four major problems in doing research in developing countries. These were: "*access to individuals*" one wishes to interview and the "*documents*" one wishes to collect; "*establishment and maintenance of field relations; management of time; and the problems of operating as an outsider in a well established and complex cultural setting*" (Stephens, 1990 p. 144). Although the setting in Malaysia may not be an extreme and the researcher in this study is not an "*outsider*" to the cultural setting, nevertheless the problem of negotiating access was still a challenging task to overcome.

To carry out a pilot test and reliability test at the ITM Perlis Branch Campus, permission from the Principal of the campus had to be sought. Following the permission, the course tutors for the accountancy and business programmes were informed by the Principal of the plan to conduct the pilot test and test-retest reliability. Through the course tutors, the relevant teachers and students chosen for the sample for the pilot test and test-retest reliability were informed. The course tutors were the key

persons through whom the interview and instrument administration schedules and rooms were arranged for the pilot test and test-retest reliability.

The most important issue of all was the negotiation of access to the samples selected in the main study. At the Northern University, the verbal permission of the Deputy Vice-Chancellor of Academic Affairs was sought. Then, the Dean and Deputy Dean of the School of Management and Accountancy were approached in order to gain access to the teachers and students of the business and accountancy programmes. The letter from the Dean proved to be very important in getting a response from the teachers selected in the sample. The meeting and group interviews were carried out within the time allocated. As a gesture of appreciation refreshments and light food were served. For the two teachers chosen in the sample who were unable to attend, another time and place were arranged.

Gaining access to the respondents at the University of Agriculture was another challenging task. The teachers and students to be selected in the samples were informed by the Deputy Dean of the Faculty of Economics and Management. It was suggested by the Deputy Dean that the most viable time to administer the instruments would be in the evening when the majority of the new business and accountancy students were attending common subjects. Permission to use part of the teachers' time for the purpose of collecting data was obtained from the Deputy Dean who then informed the teachers teaching the common subjects in the evening.

The same method was used to gather data from the final year students at the University of Agriculture. This was either carried out in the evening or during break times. At times, part of the teachers' period were utilised for the administration of the

instruments. Special meetings were held in the evenings with those students in the sample who could not attend the earlier interview.

Gaining access to all the teachers in the sample at the University of Agriculture proved a very tiring task. Although a short letter from the researcher and a note from the head of department were of some help, perseverance and tireless effort were needed to gain access to most of the management and accountancy teachers. Phone calls and visits particularly in the morning were essential to pursue the teachers when they had the time available to answer the interview questions. All these and other personal networking especially through the Dean's and Head of Department's office proved fruitful. Even so, there were four teachers who until the final days of my interview schedule could not be accessed.

Being the largest higher education institution in terms of student intake, ITM with its many levels of management needed a different strategy in order to gain access. To gain access to the respondents at ITM a letter of introduction of my research intention was sent via the supervisor to the Director, the chief executive of the Institut. A personal appointment with the Director and his Deputy in academic affairs was made to discuss the detailed plan for the interviews with the samples at ITM. Another personal approach was made to the different programme heads of accountancy, business and entrepreneurship programmes to discuss the schedule for administering the instruments. The schedules suggested however did not seem initially to be practical to the students, teachers and small business managers and needed to be amended. The laborious work entailing arranging many different groups for the administration of the test instruments at suitable times was undertaken. At times, the availability of rooms seemed to be a major problem. The scheduled time invariably fell behind however and many appointments with the teachers were postponed at the request of the teachers due

to other academic commitments. Nevertheless all interviews were eventually completed.

7.0 ORGANISING, PROCESSING AND ANALYZING DATA

The purpose of organising data is to reduce the mass of data obtained from the questionnaires to a form suitable for analysis. "*Data reduction*", as Cohen and Manion (1986) describe the process, generally consists of coding data preparatory to analysis. As suggested by Moser and Kalton (1977) the completed questionnaires first needed to be checked for completeness, accuracy and uniformity. During the completion of the questionnaire, the respondents were reminded of the importance of completing every relevant question and section in the questionnaire and the need for accuracy in the answers given. All questionnaires were checked to ensure that the respondents had received all the three instruments and had answered all the relevant questions asked.

The data were then coded in red in the columns allocated in the margin of every questionnaire. Before the data was transferred into the computer, the coding was re-checked for its accuracy. Even after the data were transcribed into the computer, it was checked again for accuracy.

The data was processed using the Statistical Package for Social Sciences (SPSS-X). In the statistical analysis, however, one unresolved issue was the question of when parametric rather than non-parametric tests should be used. Parametric tests are based on the assumption that we know certain characteristics of the population from which the sample is drawn, while non-parametric tests do not depend on assumptions about the precise form of the distribution of the sampled populations. Some writers have

argued that parametric tests might be used only when the data fulfil the following three conditions:

"1. the level or scale of measurement is of equal interval or ratio scaling; 2. the distribution of the population is normal; and 3. the variances of both variables are equal or homogeneous" (Bryman and Cramer, 1990 p.116).

Reviewing the work of Boneau (1960) and Games and Lucas (1966) on whether to use parametric or non-parametric tests, Bryman and Cramer (1990) conclude that: *"Tests which were able to withstand such violations (of the three conditions) were described as being robust. The one situation in which the tests (non-parametric tests) were not found to be robust was where the samples were of different sizes and the variances were unequal and heterogeneous"* (p. 118). However, the data in this study did not meet the above conditions. As such, in this research the non-parametric tests were used.

Various statistical methods were used in the analysis of the data collected. To start with, descriptive statistics were used. To test the hypotheses, the Chi-square test method was mainly used to find the differences between the scores on two or more variables. To establish whether there was an association between two variables, the Chi-square test was used. The Chi-square test does not however show the degree of strength of association. Hence, to measure the correlation between the variables, the Spearman rank correlation coefficient was used.

7.0 SUMMARY

This Chapter has discussed the type of research design adopted and the rationale behind the choice of exploratory rather than explanatory research design. The issues and choice of sampling methods and procedures were also discussed. The problem of selecting instruments to measure enterprising tendencies and identifying learning styles

were dealt with. To ensure the validity and the reliability of the GET Test, a test-retest reliability and the test for internal consistency were undertaken and discussed. A relatively large number of business school students and teachers at higher educational institutions were selected for the sample. In addition, 14 small business owner-managers were also taken into the sample for comparative purposes. The non-response among students and small business owner-managers was nil which is highly exceptional. The response rate of teachers too was very high. This is perhaps due to the strategies taken in negotiating access to these respondents. The data collected was analysed by using the Statistical Package for Social Science (SPSS-X).

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Note 1.

Letter of reply (25 January, 1990) from Professor Sexton, William H. Davis Chair of American Free Enterprise System, The Ohio State University, Columbus, Ohio (Full letter as in Appendix 1).

Note 2.

Research currently being carried out by Dr. Stan Cromie of the University of Ulster.

CHAPTER SEVEN

ANALYSIS AND RESULTS

1.0 INTRODUCTION

The rationale behind the hypotheses tested in this chapter has been set out in Chapter 5. The aim of this chapter therefore is to present the statistical findings against the hypotheses. The analysis and findings are organised in two major parts with respect to each of the two models.

2.0 TESTING OF HYPOTHESES CONCERNING THE DEVELOPMENT OF ENTERPRISING BEHAVIOUR AND ENTREPRENEURSHIP DEVELOPMENT

In the first part of the chapter the hypotheses concerning the broad model of enterprising behaviour and entrepreneurship development are tested. The presentation of the results will be structured according to the sets of hypotheses concerning:

- a) Current assumptions in the national development planning of Malaysia;
- b) Influences on the process of developing enterprising behaviour and entrepreneurship;
- c) The relationship between enterprising behaviour and entrepreneurial career aspiration;
- d) Career precipitating events;
- e) Perception of feasibility.

2.1 HYPOTHESES CONCERNING CURRENT ASSUMPTIONS IN THE NATIONAL DEVELOPMENT PLANNING OF MALAYSIA

There are six hypotheses in this section which were designed to test the current assumptions in national development.

Null hypothesis 1: "On the whole, the background of students indicate that there is no ethnic under-representation in the economic sectors of Malaysia"

The public sector and small business organisations were the two most important sectors which provided employment to students' parents. Table 7.1 shows that nearly half (44.8 per cent, N=176) of students' parents worked in the public sector. Small business organisations provided about a quarter (24.9 per cent, N=98) of total employment. Other sectors which provided employment to students' parents were large business organisations (5.9 per cent N=23), large private professional practice organisations (2.3 per cent N=9), small private professional practices (2.0 per cent N=8) and voluntary organisations (0.5 per cent N=2).

The employment pattern of students' parents, according to race, indicated that there was a preponderant concentration of Chinese in the small business sector and Malays in the public sector. Table 7.1 suggests that the majority of Chinese parents (57.6 per cent; N=53) work in small business organisations and about one in nine of Chinese parents work in the public sector. About four in ten (42.1 per cent, N=8) Indians work in small business organisations and three in ten (31.6 per cent, N=6) are employed in the public sector. On the other hand, the majority (56.4 per cent, N=149) of Malays are employed in public sector organisations and a minority (13.6 per cent, N=36) work in small business organisations. **The above findings confirm the present assumption of the employment pattern in Malaysia that the Chinese concentrate on small business whereas the Malays concentrate on the public sector.**

Table 7.1: The Relationship Between the Organisation Where Parents Work and Race

Count Row Pct Col Pct	Publ. Sect.	Large Bus.	Vol. Org.	Large Prof. Prac.	Small Prof. Prac.	Small Bus. Org.	Other Org.	Row Total
Race:								
Chinese	10	9	1	5	2	53	12	92
(%)	10.9	9.8	1.1	5.4	2.2	57.6	13.0	23.4
(%)	5.7	39.1	50.0	55.6	25.0	54.1	15.6	
Indian	6	2	-	-	3	8	-	19
(%)	31.6	10.5			15.8	42.1		4.8
(%)	3.4	8.7			37.5	8.2		
Malay	149	11	1	3	3	36	61	264
(%)	56.4	4.2	0.4	1.1	1.1	13.6	23.1	67.2
(%)	84.7	47.8	50.0	33.3	37.5	36.7	79.2	
Other	11	1	-	1	-	1	4	18
(%)	61.1	5.6		5.6		5.6	22.2	4.6
(%)	6.3	4.3		11.1		1.0	5.2	
Column Total %	176	23	2	9	8	98	77	393
	44.8	5.9	0.5	2.3	2.0	24.9	19.6	100.0

Another important finding is that nearly a quarter (23.1 per cent N=61) of Malays and 22.2 per cent (N=4) of other races could not classify the organisations where their parents worked. Further interviews with them revealed that their parents were mostly odd jobbers or worked on their small rubber holdings, farms or rice fields with uncertain sources of income.

The majority of the students who had a clear view of their future career were looking to becoming employees. Table 7.2 shows that the majority (59 per cent, N=232) of the students in the sample had formed a clear view of their future career and nearly three quarters (73.7 per cent, N=171) of them were looking to become employees; about a quarter (25.4 per cent, N=59) were looking to be self employed in either private professional practice or small business; and interestingly nearly one in a hundred (0.9 per cent, N=2) were looking to become politicians.

Table 7.2: Student's Future Career Choice

Students Future Career Choice	Frequency	Percent	Cumulative Percentage
Employees in:			
Large Business	67	28.9	28.9
Large Priv. Prof. Prac.	42	18.1	47.0
Public Sector	62	26.7	73.7
Self Employed:			
Small Business Owner-Mgr.	26	11.2	84.9
Small Priv. Prof. Prac.	33	14.2	99.1
Politician	2	0.9	100.0
Total	232	100.0	

Large business organisations and the public sector were the two major organisations of work most preferred among students. Table 7.2 also indicates that of those who wished to become employees, large business organisations (28.9 per cent, N=67) seemed to be their most preferred organisation, followed by government sector (26.7 per cent, N=62) and large private professional practices (18.1 per cent, N=42). On the other hand, only 11.2 per cent (N=26) of the students would have liked to have been business owner-managers and 14.2 per cent (N=33) had a preference for owning and managing their own private professional practice.

The employment preference of students is markedly different from their parental employment pattern. Table 7.3 indicates that although 42.7 per cent (N=99) of students' parents worked in the public sector, only about a quarter (26.7 per cent, N=62) of the students had chosen public sector organisations for employment. Large business had not been a major source (4.3 per cent N=10) for employment among students' parents. However, this sector had been most preferred by students. On average about three in ten (28.9 per cent N=67) students had chosen to working large business organisations. There was however no significant difference in the

proportion of students (25.4 per cent N=59) who had chosen to be self employed compared to their parents who were self employed (N=62). Thus, the comparison of students' career choice pattern relative to their parents indicates a shift in the employment pattern from the importance of the public sector to large business organisations.

Table 7.3: Potential Job Mobility From the Sectors Where Student's Parents Work

Row Pct. Col. Pct Tot. Pct	Large Bus.	Large Prof. Prac.	Self- Empl. SBO	Self- Empl. SPP	Public Sector Orgn.	Polit.	Row Total
Mobility From:							
Public Sector	23 23.2% 34.3%	22 22.2% 52.4%	14 14.1% 53.8%	11 11.1% 33.3%	28 28.3% 45.2%	1 1.0% 50.0%	99 42.7%
Large Business	2 20.0% 3.0%	2 20.0% 4.8%	1 10.0% 3.8%	1 10.0% 3.0%	4 40.0% 6.5%	-	10 4.3%
Volun. Orgn.	-	-	-	1 100.0% 3.0%	-	-	1 0.4%
Large Prof. Prac.	5 62.5% 7.5%	1 12.5% 2.4%	-	-	2 25.0% 3.2%	-	8 3.4%
Small Prof. Prac.	-	-	1 25.0% 3.8%	1 25.0% 3.0%	2 50.0% 3.2%	-	4 1.7%
Small Business	23 34.8% 34.3%	13 19.7% 31.0%	6 9.1% 23.1%	14 21.2% 42.4%	10 15.2% 16.1%	-	66 28.4%
Other Orgn.	14 31.8% 20.9%	4 9.1% 9.5%	4 9.1% 15.4%	5 11.4% 15.2%	16 36.4% 25.8%	1 2.3% 50.0%	44 19.0%
Column Total	67 28.9%	42 18.1%	26 11.2%	33 14.2%	62 26.7%	2 0.9%	232 100.0%

More than half (53.8 per cent, N=14) of the total number of students who had decided to become self employed in small business came from parents who were working in public sector organisations. In addition, one-third (33.3 per cent, N=11) of the total number of students who had decided to become self employed in small private professional practice came from parents who were employed in public sector organisations. Also more than half (52.4 per cent N=22) of those who had decided to work in large private professional practices were from parents who were employed in the public sector. In addition, 23.2 per cent (N=23) of the total number of students who had parents working in the public sector had decided to become employees in large private sector organisations.

Overall, the findings revealed that there was a shift in the likely pattern of employment among students from those of their parents. There was a marked pattern in the future career choice of students towards that of working in large business organisations and large private professional practice. On the whole, however, higher education students generally preferred to be employees rather than self employed. The organisations strongly preferred by students for employment were: firstly, large business organisations; secondly, public sector organisations; and thirdly, large private professional practices. There was however no significant difference in the students' future choice for self employment from those as chosen by their parents. On the whole, the findings confirm that there is ethnic under-representation in the economic sectors of Malaysia.

The question now is whether there is a significant difference among different ethnic groups on their future career choice in the under-represented sectors.

Null hypothesis 2: "There is no association between students' future career choice (Between employed and self employed) and race (Malays and Non Malays)

It appears that there is no difference between Malays and Non-Malays in their preferences for self employment. Of those students who had decided on their future career, 25.7 per cent (N=39) of the Malay students and 25 per cent (N=20) of the Non-Malays had chosen self employment as their future career (Table 7.4). To examine the association between students' future career choice (between employed and self employed) and race, a Chi-square test was employed. The test showed that the Chi-square value was less than the critical value at the 0.05 significance level and 1 degree of freedom. **It can therefore be concluded that there is no association between students career choice (employed or self employed) and race.**

Table 7.4: The Relationship Between Future Career Choice (Employee and Self Employed) and Race (Malays and Non-Malays)

Future Career Choice	Employee	Self Employed	Row Total
Race:			
Non-Malays	60 75.0% 34.6%	20 25.0% 33.9%	80 34.5%
Malays	113 74.3% 65.3%	39 25.7% 66.1%	152 65.5%
Column Total	173 74.6%	59 25.4%	232 100.0%
Chi-Square	D.F.	Significance	
0.00000	1	1.00000	

Null hypothesis 3: "There is no association between students' future career choice in the public sector and non-public sector organisations and race"

Malay students seem to have a greater preference (compared with Non-Malays) for working in public sector organisations rather than non-public sector organisations. Table 7.5 shows that on average about three in ten (30.9 per cent, N=47) Malay students had decided to work in public sector organisations. On the other hand, there were on average less than two in ten (18.8 per cent, N=15) Non-Malay students who had decided to work in public sector organisations. The Chi-square test result showed that the computed Chi-square value was 3.96494 ($P=0.0465$) which was greater than the critical value at the 0.05 significance level and 1 degree of freedom. The result suggests that Malays are more likely to work in the public sector, while the Non-Malays are more likely to work in the non-public sector.

Table:7.5: The Relationship Between Future Career Choice (Working in Public Sector and Non-Public sector Organisations) and Race (Malays and Non-Malays)

Future Career Choice	Non-Public Sector Org.	Public Sector Organisation	Row Total
Race:			
Non-Malays	65 81.2% 38.2%	15 18.8% 24.2%	80 34.5%
Malays	105 69.1% 61.8%	47 30.9% 75.8%	152 65.5%
Column Total	170 73.3%	62 26.7%	232 100.0%
Chi-Square	D.F.	Significance	
3.96494	1	0.0465	

Null hypothesis 4: "There is no association between students' career choice in the public sector between Chinese and Non-Chinese students"

On the whole Chinese students are less likely to work in public sector organisations. Table 7.5 shows that 10.5 per cent (N=6) of Chinese students had made a decision to work in public sector organisations. On the other hand, 32.0 per cent (N=56) of the Non-Chinese had chosen to work in public sector organisations as their future career choice. The Chi-square (Chi-square value of 9.05760) test revealed that at 0.05 significance level, there was a relationship between Chinese students and their preference to work in non-public sector organisations. **The finding suggests that Chinese students are less likely to choose public sector organisations for employment than the Non-Chinese students.**

Table 7.6: Relationship Between Career Choice (Working in Public Sector and Non-Public Sector Organisations) and Race (Chinese and Non-Chinese)

Future Career Choice	Non-Public Sector Org.	Public Sector Organisation	Row Total
Race:			
Chinese	51 89.5% 30.0%	6 10.5% 9.7%	57 24.6%
Non-Chinese	119 68.0% 70.0%	56 32.0% 90.3%	175 75.4%
Column Total	170 73.3%	62 26.7%	232 100.0%
Chi-Square	D.F.	Significance	
9.05760	1	0.0026	

Null hypothesis 5: "On the whole students (higher education students and small business owner-managers) and teachers generally perceive that entrepreneurship can be developed"

Based on the students and teachers assessments on the statements that "Entrepreneurs are born, not made" and "With a bit of training, anyone can be an entrepreneur", it appears that the majority of students (including small business owner-managers) and teachers perceived that entrepreneurs were not born and could be developed (Table 7.7 and Table 7.8).

Table 7.7: Perception That "Entrepreneurs are born not made"

Perception of:		Teachers (N=57)	Students (N=393)	Small BOM (N=14)
Strongly Disagree	1	38.6%	33.3%	21.4%
	2	22.8%	36.1%	42.9%
	3	28.1%	21.9%	28.6%
	4	5.3%	7.1%	7.1%
Strongly Agree	5	5.3	1.5%	-
		100.0%	100.0%	100.0%

On a scale of 1 (strongly disagree) to 5 (strongly agree), Table 7.7 shows that the majority of students disagreed with the statement "entrepreneurs are born and not made". Only a very negligible number of teachers (10.6 per cent, N=6), students (8.6 per cent, N=34) and small business owner-managers (7.1 per cent, N=1) disagreed with the statement.

Although they generally believed that "entrepreneurs are not born", however the majority of students and small business owner-managers perceived that "a bit of training" was not sufficient to create an entrepreneur (Table 7.8). Evidently, nearly half of the teachers either strongly disagreed (14.0 per cent, N=8) or disagreed (31.6 per cent, N=18) with the statement. On the other hand, about one in three teachers agreed with the statement.

Table 7.8: Perception That "With a bit of training, anyone can be an entrepreneur"

Perception of:		Teachers (N=57)	Students (N=393)	Small BOM (N=14)
Strongly Disagree	1	14.0%	24.4%	64.3%
	2	31.6%	32.8%	14.3%
	3	21.1%	27.5%	14.3%
	4	24.6%	10.2%	-
Strongly Agree	5	8.8%	5.1%	7.1%
		100.0%	100.0%	100.0%

Hence, the data suggests that on the whole students and teachers generally perceived that "entrepreneurs are not born" and could be developed. The data also suggests that students, including small business owner-managers, generally perceived that more than a "bit of training" was needed to become entrepreneurs.

Null hypothesis 6: "On the whole, students, small business owner-managers and teachers generally do not have a positive perception of entrepreneurs"

On a scale of one to five (1=strongly disagree, 5=strongly agree), students' and teachers' perceptions of the six statements regarding entrepreneurs (Table 7.9) indicated that they generally had positive perceptions of entrepreneurs. However, small business owner-managers appeared to have a more positive perception towards entrepreneurs than teachers and students. Unlike small business owner-managers, students and teachers did not hold the view as strongly as small business owner-managers that "entrepreneurs earn a lot of money".

Table 7.9: The Students', Teachers' And Small Business Owner-managers' Perception of Entrepreneurs (Statistical Mean Score)

	New Stud.	Grad. Stud.	Teach.	Small SBO
i) Entrepreneurs expects employees to work harder than large established companies or government organisation	3.986	3.902	3.957	4.643
ii) Entrepreneurs couldn't fit into a normal salaried job	4.095	4.142	3.561	4.286
iii) Entrepreneurs really enjoy their work.	4.220	4.066	4.035	4.786
iv) Entrepreneurs deserve every cent they get.	4.057	3.945	4.509	4.571
v) Entrepreneurs are in charge of their own lives.	4.399	4.414	4.351	4.857
vi) Entrepreneurs earn a lot of money.	3.514	3.519	3.456	4.286

(1 = strongly disagree, 5 = strongly agree)

On the whole, students, small business owner-managers and teachers thought that entrepreneurs would expect their employees to work harder than those working in other organisations. The statistical means of their perception of statement (i) above (means = 3.9), indicated such an expectation. In addition, they also perceived that entrepreneurs could not fit into a normal salaried job. Entrepreneurs were also generally perceived as being able to enjoy their work and having control over their lives. With regard to entrepreneurs' earnings, it was generally perceived that entrepreneurs deserved "every cent" they earned. Although small business owner-managers generally perceived that entrepreneurs earned a lot of money, students and teachers did not agree strongly with that notion.

The findings suggest that a general perception on the part of students, teachers and small business owner-managers that "entrepreneurs are not born" and may be developed. However, they believed that to become an entrepreneur a little training was not sufficient. Generally, small business owner-managers were more positive in their perception of entrepreneurs than students and teachers were.

2.2 TESTING OF HYPOTHESES CONCERNING INFLUENCES ON THE PROCESS OF DEVELOPING ENTERPRISING BEHAVIOUR AND ENTREPRENEURSHIP

To test the hypotheses regarding influences on the process of developing enterprising behaviour, four sets of hypotheses were designed relating to the influence of culture, personal background characteristics, learning through work experience, and socialisation.

2.2.1 Hypotheses Concerning Culture

There are altogether three hypotheses concerning culture which were tested.

Null hypothesis 1: "There is no association between students' enterprising behaviour and their race"

There was no relationship between students' enterprising behaviour and race. Table 7.10 suggests that there was no single race in which the majority of students were highly enterprising. To test the above hypothesis, the Chi-square test was employed. The computed Chi-square value of 4.89137 ($P=0.1799$) was lower than the critical value at the 0.05 significance level and 3 degrees of freedom. It can be therefore concluded that there is no association between students' enterprising behaviour and race.

Table 7.10: The Relationship Between Students' Enterprising Behaviour and Race

Count Row Pct. Col.Pct.	Chinese	Indian	Malay	Others	Row Total
Enterpg.					
Low	59 25.7% 64.1%	14 6.1% 73.7%	145 63.0% 54.9%	12 5.2% 66.7%	230 58.5%
High	33 20.2% 35.9%	5 3.1% 26.3%	119 73.0% 45.1%	6 3.7% 33.3%	163 41.5%
Column Total	92 23.4%	19 4.8%	264 67.2%	18 4.6%	393 100.0
Chi-square		D.F.	Significance		
4.89137		3	0.1799		

Null hypothesis 2: "There is no association between students' enterprising behaviour and their religion"

The enterprising behaviour of students was not found to be significantly associated with religion. This finding is based on the Chi-square test (Table 7.11) where the computed Chi-square value of 8.31958 ($P=0.0805$) was less than the critical value at the 0.05 significance level and 4 degrees of freedom. Table 7.11 also reveals that the proportion (44.8 per cent) of Christian students who were enterprising was more or less the same as those of Moslem students (44.6 per cent). Thus, it can be concluded that enterprising behaviour is not related to religion.

Table 7.11: The Relationship Between Students' Enterprising Behaviour and Their Religion

Count Row Pct. Col. Pct	Budhism	Christ.	Hindu.	Islam	Other	Row Total
Enterpg.						
Low	54 23.5% 71.1%	16 7.0% 55.2%	9 3.9% 69.2%	149 64.8% 55.4%	2 0.9% 33.3%	230 58.5%
High	22 13.5% 28.9%	13 8.0% 44.8%	4 2.5% 30.8%	120 73.6% 44.6%	4 2.5% 66.7%	163 41.5%
Column Total	76 19.3%	29 7.4%	13 3.3%	269 68.4%	6 1.5%	393 100.0%
Chi-square	D.F.		Significance			
8.31958	4		0.0805			

Null hypothesis 3: "There is no association between students' enterprising behaviour and their urban (or non urban) background"

The childhood environment in terms of urban or rural background may explain to a certain extent a traditional or modern outlook. In the village, traditional values may still be predominant. On the other hand, living in towns and cities are often associated with modern values. In this study, there are three categories of childhood environment. These are: village, small towns and large cities. Table 7.12 suggests that the majority (66.4 per cent N=261) of the students came from either urban or sub-urban areas of small towns and large capital cities. Only 33.6 per cent (N=132) of the students came from villages.

Table 7.12: Students Urban (or non urban) Background

Background	Frequency	Percent Percent	Cumulative
Village	132	33.6	33.6
State Capital or City	153	38.9	72.5
Other Towns	108	27.5	100.0
Total	393	100.0	

What proportion of students who were highly enterprising came from urban and non-urban backgrounds? Taking towns, cities and state capitals as urban, Table 7.13 shows that 44.8 per cent ($N = 117$) of the urban students and 34.8 per cent ($N = 46$) of the rural students were highly enterprising. To test the hypothesis that there is no association between students' enterprising behaviour and their urban or non-urban background, the Chi-square test was employed. It was found that the computed Chi-square value of 3.19709 ($P = 0.0738$) was less than the critical value at the 0.05 significance level and 1 degree of freedom (Table 7.13). Thus, the result shows that at 0.05 significance level, there is no association between students' enterprising behaviour and the place where an individual was brought up (rural or urban).

Table 7.13: The Relationship Between Students' Enterprising Behaviour and Their Urban or Non-urban Background

Count Row Pct. Column Pct.	Non-urban	Urban	Row Total
Enterpg.			
Low	86 37.4% 65.2%	144 62.6% 55.2%	230 58.5%
High	46 28.2% 34.8%	117 71.8% 44.8%	163 41.5%
Column Total	132 33.6%	261 66.4%	393 100.0
Chi-square	D.F.	Significance	
3.19709	1	0.0738	

2.2.2 Hypotheses Concerning Personal Background Characteristics

There are four hypotheses concerning certain personal background characteristics to be tested.

Null hypothesis 1: "There is no association between enterprising behaviour and gender"

The relationship between enterprising behaviour and gender did not seem to be significant. Table 7.14 reveals that 44.6 per cent (N=83) of male students and 38.6 per cent (N=80) of female students were highly enterprising. Although the proportion of male students who were enterprising was greater, the computed Chi-square value of 1.20585 (P=0.2722), which was less than the critical value at the 0.05

significance level and 1 degree of freedom, suggested that there was no association between enterprising behaviour and gender.

Table 7.14: The Relationship Between Students' Enterprising Behaviour and Gender

Count Row Pct. Column Pct.	Male	Female	Row Total
Enterprising:			
Low	103 44.8% 55.4%	127 55.2% 61.4%	230 58.5%
High	83 50.9% 44.6%	80 49.1% 38.6%	163 41.5%
Column Total	186 47.3%	207 52.7%	393 100.0%
Chi-square	D.F.	Significance	
1.20585	1	0.2722	

Null hypothesis 2: "There is no association between students' enterprising behaviour and parents' income"

Table 7.15 reveals that 34.9 per cent (N = 137) of the students were from the lowest income group where the parents' monthly income was below M\$500. However, if the low income group refers to one having a monthly income of below M\$1000, then the data suggests that 62.6 per cent (N = 246) of the students were from low income parents.

Table 7.15: Distribution of Parents Total Monthly Income (in Malaysian Ringgit)

Monthly Income	Frequency	Percent	Cumulative Percentage
Below \$500	137	34.9	34.9
\$500-\$999	109	27.7	62.6
\$1000-\$1999	94	23.9	86.5
\$2000-\$2999	27	6.9	93.4
\$3000-\$3999	17	4.3	97.7
\$4000-\$4999	2	0.5	98.2
\$5000 and above	7	1.8	100.0
Total	393	100.0	

It appears that highly enterprising individuals are likely to have high income parents. Taking a monthly income of less than M\$1000 as low, the Chi-square test revealed that the computed value of Chi-square was 4.06672 ($P=0.0437$) which was greater than the critical value at the 0.05 significance level and 1 degree of freedom (Table 7.16). It can therefore be concluded that there was an association between students' enterprising behaviour and their parents' income.

Table 7.16: The Relationship Between Enterprising Behaviour and Parent's Income

Parents Monthly Income	Below \$1000	\$1000 and above	Row Total
Enterprising:			
Low	154 67.0% 62.7%	76 33.0% 51.7%	230 58.5%
High	92 56.4 37.3%	71 43.6% 48.3%	163 41.5%
Column Total	246 62.6%	147 37.4%	393 100.0
Chi-square	D.F.	Significance	
4.06672	1	0.0437	

Null hypothesis 3: "There is no association between enterprising behaviour and parents' level of education"

The majority of students' parents had some formal education (Table 7.17). However, the Table reveals on average that one in ten (9.5 per cent N=37) of the students' parents or guardians had a college or university education and 15.9 per cent (N=62) of students had parents or guardians who did not have any formal education. Most of their parents or guardians, however, had had either primary (37.9 per cent N=148) or secondary education (36.8 per cent N=144).

Table 7.17: The Relationship Between Students' Enterprising Behaviour and Their Parents' Level of Education

Parent's Level of Education	No Formal	Primary	Secondary	College	Row Total
Enterp.					
Low	38 16.5% 61.3%	88 38.3% 59.5%	87 37.8% 60.4%	17 7.4% 45.9%	230 58.8%
High	24 14.9% 38.7%	60 37.3% 40.5%	57 35.4% 39.6%	20 12.4% 54.1%	161 41.2%
Column Total	62 15.9%	148 37.9%	144 36.8%	37 9.5%	391 100.0%
Chi-square		D.F.	Significance		
2.86456		3	0.4130		
Spearman Rank Correlation Coefficient			Significance		
0.0465			0.180		

It seems that the parents' level of education is not related to enterprising behaviour. Table 7.17 reveals that 54.1 per cent (N=20) of the students with parents having a college education were highly enterprising. On the other hand, of those students

whose parents had no formal education (N=62) only 38.7 per cent (N=24) were highly enterprising. To test the hypothesis whether there was a relationship between students' enterprising behaviour and their parents' level of education, the Spearman rank order correlation coefficient between the two variables was determined. The Spearman correlation coefficient of 0.0465 (P=0.180) at 0.05 level of significance showed that **there was no relationship between students' enterprising behaviour and their parents' level of education.**

2.2.3 Hypothesis Concerning Learning Through Work Experience

There are altogether twenty hypotheses tested in this section.

Null hypothesis 1: "There is no association between enterprising behaviour and the number of permanent jobs experienced"

The majority (52.7 per cent, N=207) of students had not had any permanent job experience since their secondary education (Table 7.18). Permanent job experience refers to having a full-time job. The Table shows that about three in ten (29.3 per cent, N=115) of the students had had one permanent job; 11.7 per cent (N=46) had had two permanent jobs; and 6.4 per cent (N=25) had had three or more permanent jobs since their secondary education.

Those who had had experience of a greater number of permanent jobs were likely to be more enterprising than those who had a lesser number of permanent jobs. The Spearman Rank Correlation Coefficient between students' enterprising behaviour and the number of permanent jobs experienced was employed in testing the above hypothesis. The Spearman Correlation Coefficient of 0.3750 (P=0.000) suggested that there was a positive relationship between students' enterprising behaviour and their number of permanent jobs. **The result indicates that an individual with**

experience of a greater number of permanent jobs is likely to be more enterprising than an individual with experience of a lesser number of permanent jobs.

Table 7.18: Students and Their Number of Permanent Jobs Since Secondary Education

Number of Jobs	Frequency	Percent	Cumulative Percentage
0	207	52.7	52.7
1	115	29.3	81.9
2	46	11.7	93.6
3	16	4.1	97.7
4	3	0.8	98.5
5	6	1.5	100.0
Total	393	100.0	
Spearman Rank Correlation Coefficient		Significance	
0.3750		0.000	

To test hypotheses 2 to 7 for an association between students enterprising behaviour and their permanent job experience in various types of organisation, the cross-tabulation table and Chi-square test results are presented in Table 7.19.

Null hypothesis 2: "There is no association between enterprising behaviour and having permanent job experience in public sector organisations"

Although it has been found earlier that an individual who had experience of a permanent job was likely to be more enterprising, however, having a permanent job experience in the public sector was not found to be related to students' enterprising behaviour. Of those who had permanent job experience in public sector organisations, 48.2 per cent (N=27) were highly enterprising (Table 7.19). On the other hand, of those who did not have such experience, 40.4 per cent (N=136) were

highly enterprising. The Chi-square value of 0.91935 ($P=0.3376$), which was less than the critical value at the 0.05 significance level and 1 degree of freedom, suggests that **there was no association between students' enterprising behaviour and having had a permanent job experience in public sector organisations.**

Null hypothesis 3: "There is no association between enterprising behaviour and having permanent job experience in large business organisations"

Apparently, students' enterprising behaviour was related to having had permanent job exposure in large business organisations. Of those who had permanent job experience in large business organisations, 61.5 per cent ($N=24$) were highly enterprising. On the other hand, of those who did not have such experience, 39.3 per cent ($N=139$) were also highly enterprising. The Chi-square value of 6.29132 ($P=0.0121$) between the two variables, was greater than the critical value at the 0.05 significance level and 1 degree of freedom. Thus, **it can be concluded that there was an association between students' enterprising behaviour and having had permanent job experience in the large business organisations.**

Null hypothesis 4: "There is no association between enterprising behaviour and having permanent job experience in voluntary organisations"

Although there were students who had had permanent job experience in voluntary organisations, however the number ($N=4$) was too small for a very meaningful statistical interpretation of the result. Nonetheless, it can be noted that of four students who had permanent job experience in voluntary organisations, three of these were highly enterprising. On the other hand, of those who did not have experience in voluntary organisations, 41.1 per cent ($N=160$) were highly enterprising. Although the majority of those who had working experience in voluntary organisations were highly enterprising, **the number of those who had such**

experience is too small to infer (statistically) that those who had such experience were likely to be highly enterprising.

Null hypothesis 5: "There is no association between enterprising behaviour and having permanent job experience in a large private professional practice"

The findings suggest that the above null hypothesis cannot be rejected. Of those who had had permanent job experience in large private professional practices, 52.2 per cent (N = 12) were highly enterprising. On the other hand, of those who did not have such experience, 40.8 per cent (N = 151) were highly enterprising. The Chi-square test produced the Chi-square value of 0.73130 (P = 0.3925), which was less than the critical value at the 0.05 significance level and 1 degree of freedom. Hence, the result indicates that there was no association between students' enterprising behaviour and having had permanent job experience in a large private professional practice.

Null hypothesis 6: "There is no association between enterprising behaviour and having permanent job experience in small private professional practice"

Although the majority of students who had permanent job experience in small private professional practices were highly enterprising, the result suggests that there was no association between having had permanent job experience in a small private professional practice and an individual's enterprising behaviour. Table 7.19 shows that 60.0 per cent (N = 12) of the students who had permanent job experience in small private professional practices were highly enterprising. On the other hand, of those who did not have such experience, 40.5 per cent (N = 151) were highly enterprising. To test the hypothesis that there was no association between students' enterprising behaviour and having permanent job experience in small private professional practice, the Chi-square test was utilised. The Chi-square value of 2.22913 (P = 0.1354) was less than the critical value at the 0.05 significance level and 1

degree of freedom. The test result suggests that there was no association between students' enterprising behaviour and having had a permanent job in a small private professional practice.

Null hypothesis 7: "There is no association between enterprising behaviour and having a permanent job experience in small business organisations"

Those who have had a permanent job experience in small business organisations are likely to be more highly enterprising than those who do not. The cross-tabulation table (Table 7.19) shows that 81.6 per cent (N=62) of those who had a permanent job in a small business were highly enterprising. Of those who did not have such experience, only 31.9 per cent (N=101) were highly enterprising. The Chi-square results revealed that, at 0.05 level of significance and 1 degree of freedom, the Chi-square value of 60.3956 (P=0.0000) was greater than the critical value. Thus, it can be concluded that there was an association between students' enterprising behaviour and having a permanent job experience in small business.

Table 7.19: The Relationship Between Students Enterprising Behaviour and Having Permanent Job Experience in Various Types of Organisation

Experience in:	Low Enterg.	High Enterg.	Row Total	Chi-sq	D.F.	Significanc
a) Public Sector:						
No	201 59.6%	136 40.4%	337 85.8%	0.91935	1	0.3376
Yes	29 51.8%	27 48.2%	56 14.2%			
b) Large Business:						
No	215 60.7%	139 39.3%	254 90.1%	6.29132	1	0.0121*
Yes	15 38.5%	24 61.5%	39 9.9%			
c) Volunt. Org.:						
No	229 58.9%	160 41.1%	389 99.0%			
Yes	1 25.0%	3 75.0%	4 1.0%			
d) Large Prof. Prac:						
No	219 59.2%	151 40.8%	370 94.1%	0.73130	1	0.3925
Yes	11 47.8%	12 52.2%	23 5.9%			
e) Small Prof. Prac:						
No	222 59.5%	151 40.5%	373 94.9%	2.22913	1	0.1354
Yes	8 40.0%	12 60.0%	20 5.1%			
f) Small Business:						
No	216 68.1%	101 31.9%	317 80.7%	60.3956	1	0.0000*
Yes	14 18.4%	62 81.6%	76 19.3%			

* P < 0.05

It is now intended to determine the relationship between students enterprising behaviour and their number of years of permanent job experience in the following organisations: public sector; large businesses; large private professional practices; small private professional practices; and small businesses. To test the following null hypotheses 8 to 12, Spearman Correlation Coefficients for the variables were determined and are presented in Table 7.20.

Null hypothesis 8: "There is no relationship between enterprising behaviour and their length of experience in public sector organisations"

On the relationship between students enterprising behaviour and their length of experience in the public sector, the Spearman Correlation Coefficient of 0.0502 ($P=0.161$) at 0.05 significance level, suggests that **there was no relationship between students' enterprising behaviour and their length of experience in public sector organisations.**

Null hypothesis 9: "There is no relationship between enterprising behaviour and their length of experience in large business organisations"

The Spearman correlation coefficient between students' enterprising behaviour and their length of experience in large business organisation of 0.1550 ($P=0.001$) indicates that **there was a positive direct relationship between the two variables (enterprising behaviour and their length of experience in large business organisations), at the 0.05 significance level. Thus, the above null hypothesis is rejected.**

Null hypothesis 10: "There is no relationship between enterprising behaviour and length of experience in large private professional practice"

On the relationship between students' enterprising behaviour and their length of experience in large private professional practice, the Spearman Correlation

Coefficient of 0.0557 ($P=0.135$) at 0.05 significance level suggests that there was no relationship between the two variables (enterprising behaviour and length of experience in large private professional practice).

Null hypothesis 11: "There is no relationship between enterprising behaviour and length of experience in small private professional practice"

Although, it has been found previously that there was no association (statistically significant) between students' enterprising behaviour and having had permanent job experience in small private professional practice, there seemed to be a positive but very weak relationship between students' enterprising behaviour and their length of experience in small private professional practice. The Spearman Correlation Coefficient of 0.0848 ($P=0.047$) suggests that at the 0.05 significance level there was a weak positive relationship between students' enterprising behaviour and their length of experience in small private professional practice.

Table 7.20: The Relationship Between Students' Enterprising Behaviour and Their Length of Experience in Various Types of Organisations

Types of Organisation	Spearman Rank Correlation Coefficient	Significance
Public Sector Organisation (N = 56)	0.0502	0.161
Large Business (N = 39)	0.1550	0.001*
Large Priv. Prof. Prac. (N = 23)	0.0557	0.135
Small Priv. Prof. Prac. (N = 20)	0.0848	0.047*
Small Business (N = 76)	0.3993	0.000*

* $P < 0.05$

Null hypothesis 12: "There is no relationship between enterprising behaviour and length of experience in small business organisations"

It has been found that there was an association between students' enterprising behaviour and having had permanent job experience in small business. However, the strength of relationship between students' enterprising behaviour and their length of experience in small business was not determined. The Spearman Correlation Coefficient of 0.3993 ($P=0.000$) between students' enterprising behaviour and their length of experience in small business suggests that there was a direct relationship between the two variables (Table 7.20).

Table 7.21 presents the statistical results of testing null hypotheses 13 to 20 on the relationships between students' enterprising behaviour and having the following experiences:

- a) Having experience in selling;
- b) Having experience of being in-charge of other people;
- c) Keeping business accounts;
- d) Running an organisation;
- e) Trading for one's own business;
- f) Trading for someone else;
- g) Working alongside a small business owner-manager;
- h) Working alongside an owner of a small private professional practice.

The results suggest that all experiences, except that of working alongside the owner of a small private professional practice, had positive relationships with enterprising behaviour. However, after testing for "spuriousness" there was no "true relationship" between enterprising behaviour and having experience in selling. To determine the "true relationship" a test for "spurious relationship" was done. However, only the result of the test for spuriousness between enterprising behaviour and having

experience in selling is presented because it is the only finding where the relationship was found to be spurious.

A spurious relationship exists when the relationship between two variables is not a "true relationship", in that it only appears because a third variable causes each of the variables making up the pair (Bryman and Cramer, 1990). To establish the "true relationship", there was a need to test for spuriousness between students' enterprising behaviour and their experience in selling, while controlling for the third variable (working alongside a small business owner-manager). If the relationship is spurious one would expect the relationship between the two variables largely to disappear.

Table 7.21: The Relationship Between Students' Enterprising Behaviour and Having Specific Types of Experience

Experience in:	High Enterpg.	Low Enterpg.	Chi-sq	DF	Significance
a)Selling: -No (N = 199) -Yes (N = 194)	30.7% 52.6%	69.3% 47.4%	18.55969	1	0.0000*
b)In Charge of other people: -No (N = 325) -Yes (N = 68)	37.2% 61.8%	62.8% 38.2%	12.95211	1	0.0003*
c)Keeping Accounts: -No (N = 302) -Yes (N = 91)	35.8% 60.4%	64.2% 39.6%	16.54270	1	0.0000*
d)Running an Organisation: -No (N = 359) -Yes (N = 34)	39.8% 58.8%	60.2% 41.2%	3.86536	1	0.0493*
e)Trading for Own Business: -No (N = 356) -Yes (N = 37)	36.0% 94.6%	64.0% 5.4%	45.09485	1	0.0000*
f)Trading for Someone Else: -No (N = 305) -Yes (N = 88)	33.4% 69.3%	66.6% 30.7%	34.74947	1	0.0000*
g) Working Alongside Small Owner-Manager -No (N = 258) -Yes (N = 135)	17.1% 88.1%	82.9% 11.9%	181.6246	1	0.0000*
h)Working Alongside Small Prof. Practitioner: -No (N = 365) -Yes (N = 28)	40.0% 60.7%	60.0% 39.3%	3.78316	1	0.0518

* P < 0.05

Null hypothesis 13: "There is no relationship between enterprising behaviour and having experience in selling"

Students' experience in selling was the most reported kind of experience gained by students. About half (49.4 per cent $N=194$) of total students had had such experience. Out of those who had experience in selling, 52.6 per cent ($N=102$) were highly enterprising. On the other hand, out of 199 students who had no such experience, only 30.7 per cent ($N=61$) were highly enterprising. The Chi-square test was employed to test the above hypothesis. The result appears to suggest that at 0.05 significance level, there was an association between the students experience in selling and enterprising behaviour. This was evident from the computed Chi-square value of 18.55969 ($P=0.0000$) which was greater than the critical value for 1 degree of freedom. However, the relationship could be spurious due to a third variable. The third variable most reported by those who had experience in selling was having experience of working alongside a small business owner-manager.

To find the "true relationship" the cross-tabulation table and Chi-square test are presented in Table 7.22.

Table 7.22: The Relationship Between Enterprising Behaviour and Selling Experience Among Those Who Do Not Work Alongside Small Business Owner-Managers (Controlling Variable)

Having Experience in Selling?	Yes	No	Row Total
Enterprising:			
Low	132 61.7% 83.0%	82 38.3% 31.8%	214 82.9%
High	27 61.4% 17.0%	17 38.6% 17.2%	44 17.1%
Column Total	159 61.6%	99 38.4%	258 100.0
Chi-square	D.F.	Significance	
0.0000	1	1.0000	

Among those who did not have experience in working alongside small business owner-managers, 61.6 per cent (N=159) reported as having some experience of selling. However, Table 7.22 shows that among those students who had experience in selling but did not work alongside small business owner-managers, 17.0 per cent (N=27) were found to be highly enterprising. On the other hand, 17.2 per cent (N=17) of those who did not have either experience in selling or working alongside small business owner-manager were highly enterprising. The Chi-square value of 0.0000 (P=1.0000) suggests that at 0.05 significance level and 1 degree of freedom there was no association between students' enterprising behaviour and having experience in selling among those who did not work alongside small business owner-managers. Thus the relationship between students' enterprising behaviour and having experience in selling was spurious due to the third variable of working alongside small business owner-managers.

Null hypothesis 14: "There is no relationship between enterprising behaviour and having experience of being in charge over other people at work"

With regard to the experience of being in charge of other people at work, 17.3 per cent (N=68) of the students reported having that experience. Of those who had experience of being in charge of other people at work, 61.8 per cent (N=42) were highly enterprising. On the other hand, 37.2 per cent (N=121) of the students who had no such experience were also highly enterprising. **The Chi-square result showed that there was an association between students' enterprising behaviour and having experience of being in charge of other people at work.** This was evident from the computed Chi-square value of 12.95211 (P=0.0003) which was greater than the critical value at the 0.05 significance level and 1 degree of freedom.

Null hypothesis 15: "There is no relationship between enterprising behaviour and having experience of keeping business accounts or parts of the business accounts"

Out of those students (N=91) who had experience of keeping accounts or parts of the accounts, 60.4 per cent (N=55) of them were highly enterprising. However, of those students (N=302) who had no such experience, 35.8 per cent (N=108) were highly enterprising. The Chi-square result shows that at 0.05 level of significance and 1 degree of freedom, the computed Chi-square value of 16.54270 (P=0.0000) was greater than the critical value. **Therefore, the result suggests that there was an association between students' enterprising behaviour and having experience in keeping business accounts or parts of the accounts.**

Null hypothesis 16: "There is no relationship between enterprising behaviour and having experience of running an organisation"

There were 34 students who reported having experience of running an organisation. Of the total, 58.8 per cent (N=20) of these were highly enterprising. However, of those who had no such experience, 39.8 per cent (N=143) of them were highly

enterprising. The Chi-square result shows that at 0.05 level of significance and 1 degree of freedom, the Chi-square value was 3.86536 ($P=0.0493$) and was therefore greater than the critical value. Thus, the result suggests that there was an association between students' enterprising behaviour and the experience of running an organisation.

Null hypothesis 19: "There is no relationship between enterprising behaviour and having experience of trading for one's own business"

With regard to having experience in trading for one's own business, 37 students reported having such experience. Out of these, 94.6 per cent ($N=35$) of them were highly enterprising. On the other hand, of those students who had no experience in trading for own business, 36.0 per cent ($N=128$) were highly enterprising. The Chi-square test revealed that the Chi-square value of 45.09485 ($P=0.0000$) was greater than the critical value at the 0.05 significance level and 1 degree of freedom. Thus, the result suggests that there was an association between students' enterprising behaviour and having experience of trading for own business.

Null hypothesis 20: "There is no relationship between enterprising behaviour and having experience of trading for someone else"

There were 88 students who had experience in trading for someone else. Out of the total, 69.3 per cent ($N=61$) were highly enterprising. On the other hand, of those who had no such experience, 33.4 per cent ($N=102$) were also highly enterprising. The Chi-square test result showed that the computed Chi-square value of 34.74947 ($P=0.0000$) was greater than the critical value at the 0.05 significance level and 1 degree of freedom. Thus, it can be concluded that there was an association between students' enterprising behaviour and having experience in trading for someone else.

Null hypothesis 7: "There is no relationship between enterprising behaviour and having experience in working alongside a small business owner-manager"

Nearly one-third (N=135) of the students indicated that they had experience in working alongside small business owner-managers. Out of the total number, 88.1 per cent (N=119) were highly enterprising. On the other hand, 17.1 per cent (N=44) of those who had no such experience were highly enterprising. The Chi-square test showed that the Chi-square value of 181.6246 (P=0.0000) was greater than the critical value at 0.05 significance level and 1 degree of freedom. Hence, there was a **relationship between students' enterprising behaviour and having experience in working alongside small business owner-managers.**

Null hypothesis 15: "There is no relationship between enterprising behaviour and having experience in working alongside an owner of a small private professional practice"

Only 28 students indicated having experience of working alongside an owner of a small private professional practice. Of those who had such experience, 60.7 per cent (N=17) were highly enterprising. On the other hand, of those students who had no experience in working alongside a small private professional practitioner, 40.0 per cent (N=146) were highly enterprising. The result of the Chi-square test showed that at the 0.05 significance level and 1 degree of freedom, the Chi-square value was 3.78316 (P=0.0518) and was less than the critical value. Thus, it can be concluded that **there was no association between students' enterprising behaviour and having experience in working alongside an owner of a small private professional practice.**

2.2.4 Hypotheses Concerning Socialisation

With respect to the testing of hypotheses concerning socialisation, there are four hypotheses which were tested. To test these hypotheses concerning socialisation,

cross-tabulations tables and Chi-square tests were employed and the results are presented in Table 7.23, Table 7.24 and Table 7.25.

Null hypothesis 1: "There is no association between students' enterprising behaviour and having an entrepreneurial parent role model"

It appears that there was an association between students' enterprising behaviour and having entrepreneurial parents (Table 7.23). Of those who had parents who owned or ran their own business or private professional practice, 52.3 per cent (N=45) were highly enterprising. On the other hand, of those who did not have parents who owned or ran their own business or private professional practice, 38.4 per cent (N=118) were highly enterprising. The Chi-square value of 4.78216 appeared to suggest that there was an association between students' enterprising behaviour and having entrepreneurial parents, at the 0.05 significance level and 1 degree of freedom.

Table 7.23: The Relationship Between Students' Enterprising Behaviour and Having Entrepreneurial Parent

Parent Owned or Run Their Own Business Full Time?	NO	YES	Row Total
Enterprising:			
Low	189 82.2% 61.6%	41 17.8% 47.7%	230 58.5%
High	118 72.4% 38.4%	45 27.6% 52.3%	163 41.5%
Column Total	307 78.1%	86 21.9%	393 100.0
Chi-square	D.F.	Significance	
4.78216	1	0.0288	

However, to establish the existence of a true relationship between the two above variables, it was necessary to show that the relationship was non-spurious. To do so, the cross-tabulation table is presented in Table 7.24 between the two variables (students enterprising behaviour and having an entrepreneurial parent role model) while controlling the third variable - working alongside a small business owner-manager or their entrepreneurial parent. If the relationship was spurious one would expect the relationship between the two variables largely to disappear. Control of the variables of working alongside a small business owner-manager or owner of a small private professional practice (who might be their entrepreneurial parents) would also show the possible effect of not working alongside an entrepreneurial role model on students' enterprising behaviour.

Null hypothesis 2: "Among those who do not work alongside a small business owner-manager/entrepreneurial parent, there is no association between students enterprising behaviour and having an entrepreneurial parent"

Among those who do not work alongside their entrepreneurial parent or a small business owner-manager/owner of a small private professional practice, only 10.0 per cent (N=4) of those with an entrepreneurial parent were highly enterprising. Of those who did not have an entrepreneurial parent and at the same time did not work alongside a small business owner-manager/owner of a small private professional practice, 18.3 per cent (N=40) were highly enterprising. The Chi-square value of 1.12743 (P=0.2883) which was less than the critical value at the 0.05 significance level and 1 degree of freedom suggests that **there was no association between students' enterprising behaviour and having an entrepreneurial parent for those who did not work alongside their entrepreneurial parent or a small business owner-manager/ owner of a small private professional practice.**

Table 7.24: The Relationship Between Students' Enterprising Behaviour and Having An Entrepreneurial Parent Among Those Who Do Not Work Alongside Their Entrepreneurial Parent or Small Business Owner-Manager/Owner of Small Private Professional Practice

Parent Owned or Run Their Own Business Full Time?	NO	YES	Row Total
Enterprising Tendency:			
Low	178 83.2% 81.7%	36 16.8% 90.0%	214 82.9%
High	40 90.9% 18.3%	4 9.1% 10.0%	44 17.1%
Column Total	218 84.5%	40 15.5%	258 100.0
Chi-square	D.F.	Significance	
1.12743	1	0.2883	

Null hypothesis 3: "Among those who work alongside their entrepreneurial parent or small business owner-manager/owner of small private professional practice, there is no association between students' enterprising behaviour and having an entrepreneurial parent"

Table 7.25 shows that among those who had experience in working alongside small business owner-managers/owners of small private professional practice (who might include their entrepreneurial parent), 89.1 per cent (N=41) of those who had entrepreneurial parent were highly enterprising and 87.6 per cent (N=78) of those who did not have an entrepreneurial parent were highly enterprising. The Chi-square value of 0.0000 ($P=1.0000$) which was less than the critical value at the 0.05 significance level and 1 degree of freedom suggests that there was no association between students' enterprising behaviour and having an entrepreneurial parent among those who had experience in working alongside a small business owner-

manager/owner of small private professional practice. Thus, the relationship between students' enterprising behaviour and having an entrepreneurial parent was not a true but spurious relationship. The variables that cause the two variables (students' enterprising behaviour and having an entrepreneurial parent role model) making up the pair are "Working alongside an independent small business owner-manager" and/or "Working alongside the owner of a small private professional practice" who might include their entrepreneurial parent.

Table 7.25: The Relationship Between Students' Enterprising Behaviour and Having An Entrepreneurial Parent Among Those Who Work Alongside Their Entrepreneurial Parent or Small Business Owner-Managers/Owners of Small private Professional Practices

Parent Owned or Run Their Own Business Full Time?	NO	YES	Row Total
Enterprising Tendency:			
Low	11 68.8% 12.4%	5 31.3% 10.9%	16 11.9%
High	78 65.5% 87.6%	41 34.5% 89.1%	119 88.1%
Column Total	89 65.9%	46 34.1%	135 100.0
Chi-square	D.F.	Significance	
0.00000	1	1.0000	

Null hypothesis 4: "There is no association between students' enterprising behaviour and having an entrepreneurial grandparent"

The next question to be answered is whether there is an association between students' enterprising behaviour and having grandparents who owned or ran their

own business or private professional practice. Table 7.26 below shows that 46.7 per cent (N=35) of those students who had an entrepreneurial grandparent were highly enterprising. However, 40.3 per cent (N=128) of those who did not have entrepreneurial grandparents were highly enterprising. The Chi-square test suggests that there was no association between students' enterprising behaviour and having entrepreneurial grandparents. This was indicated by the computed Chi-square value of 0.78158, which was less than the critical value at the 0.05 significance level and 1 degree of freedom.

Table 7.26: The Relationship Between Students' Enterprising Behaviour and Having Entrepreneurial Grandparents

Grandparent Owned or Ran Their Own Business or Priv. Prof. Practice?	NO	YES	Row Total
Enterprising:			
Low	190 82.6% 59.7%	40 17.43% 53.3%	230 58.5%
High	128 78.5% 40.3%	35 21.5% 46.7%	163 41.5%
Column Total	318 80.9%	75 19.1%	393 100.0
Chi-square	D.F.	Significance	
0.78158	1	0.3767	

2.3 HYPOTHESES CONCERNING THE RELATIONSHIP BETWEEN ENTERPRISING BEHAVIOUR AND ENTREPRENEURIAL CAREER ASPIRATION

Three hypotheses concerning the relationship between enterprising behaviour and entrepreneurial career aspiration were tested in this section.

Null hypothesis 1: "There is no association between students' enterprising behaviour and having a business idea and wishing to start a business"

Enterprising students are likely to have a business idea and wishing to start a business in the future. Having a business idea and the wish to start business is an indication of an individual's entrepreneurial career aspirations. Although it has been found that only a quarter (25.4 per cent, see Table 7.2) of the students who had decided to be self employed as their future career choice, the majority (56.5 per cent N=222) of students had indicated that they had a business idea and wished to start their own business or private professional practice. Table 7.27 shows that the majority (54.1 per cent N=120) of highly enterprising students had a business idea and wished to start a business in the future. On the other hand, about a quarter (25.1 per cent N=43) of the highly enterprising students did not have a business idea.

To test the hypothesis between the association of students' enterprising behaviour with possessing a business idea and the wish to start a business in the future, the Chi-square test was utilised. The Chi-square value of 32.07481 ($P=0.0000$) which was greater than the critical value at the 0.05 significance level and 1 degree of freedom suggests that the association between enterprising behaviour and having a business idea and wishing to start a business in the future is statistically significant. Thus, it can therefore be concluded that enterprising behaviour is likely to be associated with possession of a business idea and a wish to start a business in the future.

Table 7.27: The Relationship Between Enterprising behaviour and Having a Business Idea

Count Row Pct. Column Pct.	Have No Business Idea	Have Business Idea and Wish to Start Bus.	Row Total
Enterprising:			
Low	128 55.7% 74.9%	102 44.3% 45.9%	230 58.5%
High	43 26.4% 25.1%	120 73.6% 54.1%	163 41.5%
Column Total	171 43.5%	222 56.5%	393 100.0%
Chi-square	D.F.	Significance	
32.07481	1	0.0000	

Null hypothesis 2: "There is no association between enterprising behaviour and career choice"

The cross-tabulation of career choice by enterprising behaviour in Table 7.28 reveals that more than three quarters (76.9 per cent N=20) of those students who had chosen to be self employed in small business were highly enterprising. On the other hand, 39.4 per cent (N=13) of those who had chosen to be self employed in small professional firms were highly enterprising. However, 71.0 per cent (N=44) of those students who chose working in the public sector were less enterprising. In addition, the majority of those students who had made their choice to work in large business and large professional firms have a low enterprising behaviour score. The Chi-square test showed that the computed value of Chi-square of 18.19085 (P=0.0011), which was greater than the critical value at the 0.05 significance level and 4 degrees of freedom, suggests that students' enterprising behaviour was associated with their career choice. Those who were highly enterprising were likely

to choose self employment in small business as their future career choice. And those who were less enterprising were more likely to choose employment in large businesses, large private professional practices; self employment in small private professional practice; and in the public sector.

Table 7.28: The Relationship Between Career Choice and Enterprising Behaviour

Row Pct Col. Pct.	Large Bus.	Large Prof. Prac.	Self- Empl. SBO.	Self- Empl. SPP.	Public Sector	Row Total
Enterpg.:						
Low	41 30.8% 61.2%	22 16.5% 52.4%	6 4.5% 23.1%	20 15.0% 60.6%	44 33.1% 71.0%	133 57.8%
High	26 26.8% 38.8%	20 20.6% 47.6%	20 20.6% 76.9%	13 13.4% 39.4%	18 18.6% 29.0%	97 42.2%
Column Total	67 29.1%	42 18.3%	26 11.3%	33 14.3%	62 27.0%	230 100.0%
Chi-square	D.F.		Significance			
18.19085	4		0.0011			

Null hypothesis 3: "There is no association between enterprising behaviour and students' future career choice as self employed"

It has been found that an individual's enterprising behaviour was related to career choice. However, is there any association between an individual's enterprising behaviour and their career choice to be either self employed or employee? Table 7.29 presents the cross-tabulation between students' enterprising behaviour and their career choice as employee or self employed. It is clear that the majority (55.9 per cent, N=33) of those who had chosen to be self employed were highly

enterprising, while 37.6 per cent (N=65) of those who had not chosen to be self employed were highly enterprising.

Table 7.29: The Relationship Between Students' Enterprising Behaviour and Future Career Choice

Future Career Choice	Employee	Self Employed	Row	Total
Enterprising:				
Low	108 80.6% 62.4%	26 19.4% 44.1%	134 57.8%	
High	65 66.3% 37.6%	33 33.7% 55.9%	98 42.2%	
Column Total	173 74.6%	59 25.4%	-	232 100.0%
Chi-Square	D.F.	Significance		
5.34930	1	0.0207		

To test the above hypothesis, a Chi-square test was employed. The computed Chi-square value was 5.34930 ($P=0.0207$) and was greater than the critical value at the 0.05 significance level and 1 degree of freedom. The result suggests that there was an association between enterprising behaviour and the career choice of being an employee or self employed. Thus, it can be concluded that the highly enterprising students were more likely to choose self employment than their less enterprising counterpart.

2.4 HYPOTHESES CONCERNING CAREER PRECIPITATING EVENTS

In this section, there are a total of 10 hypotheses to be tested concerning the following:

- a) Influences of having an entrepreneurial role model on an entrepreneurial career (null hypotheses 1 to 3);
- b) Influences of a "critical other" on career;
- c) Occupational values.

Null hypothesis 1: "There is no association between having two generations of an entrepreneurial family background (grandparents and parents) and an entrepreneurial career choice"

In the preceding section, it has been found that there was no relationship between students' enterprising behaviour and having an entrepreneurial parent and grandparent. However, it has been found that there was a relationship between enterprising behaviour and working alongside an entrepreneurial person such as a small business owner-manager or entrepreneurial parent. There has been no examination made in the preceding sections on the association between having two generations of an entrepreneurial background and an entrepreneurial career choice.

The pattern of future career choice among students with two generations (grandparents and parents) of an entrepreneurial background showed some interesting results. Among the 75 students whose grandparents owned or ran their business or private professional practice, 33.3 per cent (N=25) of them had parents who, following their grandparents' footsteps, were running their own business or private professional practice. Among those students with entrepreneurial grandparents and parents (N=25), seventeen of them had decided on their future career (Table 7.30). Among these students, more than half (53.0 per cent, N=9) had chosen self employment as their future career and the remainder 47.0 per cent (N=7) had decided to be employees.

However, among those who did not have an entrepreneurial background, only 22.5 per cent had chosen self employment as their future career. It is clear that students with two generations of an entrepreneurial family were more likely to choose self employment than those who did not have any entrepreneurial family background.

Null hypothesis 2: "There is no association between having an entrepreneurial family background (parents only) and an entrepreneurial career choice"

What is the future trend of career choice among students with entrepreneurial parents but without entrepreneurial grandparents? There were altogether 61 students in this category and 43 students had decided on their future career. Of those who had decided on their future career, 27.9 per cent (N=12) of them had decided to be self employed, while the remainder 72.1 per cent (N=31) had decided to be employees (Table 7.30). Of those without any entrepreneurial background, only 22.5 per cent had chosen self employment. Thus, the results suggest that students with an entrepreneurial family were more likely to be self employed than those without.

Table 7.30: The Association Between Entrepreneurial Parent Background and Entrepreneurial Career Choice

Career Choice	Entrepreneurial Grandparent and Parent (N=17)	Entrepreneurial Parent (N=43)	Non Entrepreneurial Family (N=111)
Decided to be:			
Self employed	53%	27.9%	22.5%
Employees	47%	72.1%	77.5%

Students without any entrepreneurial background were those who had neither entrepreneurial parents nor entrepreneurial grandparents. There were altogether

111 students in such category. Out of this, 11.7 per cent (N=13) had decided to become self employed in small business and 10.8 per cent (N=12) had decided to become self employed in private professional practice. Thus, 22.5 per cent (N=25) of the students in this category had decided to be self employed. The remainder 77.5 per cent (N=86) had decided to work in the following organisations: 24.3 per cent (N=27) in large business; 17.1 per cent (N=19) in large professional firms; 34.2 per cent (N=38) in the public sector and 1.8 per cent (N=2) as politicians.

The above findings suggests that those with an entrepreneurial background are more likely to choose self employment as their future career than those without.

Null hypothesis 3: "There is no association between entrepreneurial career choice and having experience of working alongside small business owner-managers"

There seemed to be a relationship between entrepreneurial career choice and having experience of working alongside a small business owner-manager. Table 7.31 reveals that of those students who had chosen to become self employed (N=59), more than half (57.6 per cent N=34) had experience in working alongside small business owner-managers. On the other hand, those who had chosen to be employees (including politicians), 31.2 per cent (N=54) had experience in working alongside small business owner-managers. To examine whether the relationship between entrepreneurial career choice and having experience in working alongside small business owner-managers was statistically significant, a Chi-square test was employed. The computed Chi-square value of 11.93944 (P=0.0005) at the 0.05 significance level suggests that the association between an entrepreneurial career and having experience of working alongside small business owner-managers was statistically significant.

Table 7.31: The Relationship Between Students Future Career Choice In Self Employment And The Experience Of Working Alongside A Small Business Owner-Manager (SBO)

Future Career Choice	Employee	Self Employed	Row Total
Experience in Working Alongside SBO			
Without Experience	119 82.6% 68.8%	25 17.4% 42.4%	144 62.1%
With Experience	54 61.4% 31.2%	34 38.6% 57.6%	88 37.9%
Column Total	173 74.6%	59 25.4%	232 100.0%
Chi-Square	D.F.	Significance	
11.93944	1	0.0005	

Overall, it can be concluded that those with two generations of an entrepreneurial family background had a slightly greater tendency to be self employed than those with one generation in terms of such a family background. For example, of those who had entrepreneurial grandparents, one third (33.3 per cent) had entrepreneurial parents (second generation entrepreneurs) who followed their grandparents' footsteps of being self employed. More than half (53.0 per cent) of their siblings (students) had chosen self employment as their future career. Among those who had entrepreneurial parents but without entrepreneurial grandparents, 27.9 per cent of these had decided to become self employed. Among those without entrepreneurial background, 22.5 per cent had decided to become self employed. **Another important finding is that those who had experience in working alongside small business owner-managers were more likely to choose self employment than those without.**

Null hypothesis 4: On the whole, there is no difference in the extent of influence of parents, relatives, friends, primary school teachers, secondary school teachers, college teachers and college career advisors"

Determining the "critical others" who influence students' careers is important for effective intervention in encouraging graduates to venture into their own business. The views of new and graduating students were useful in determining the extent of influence the "critical others" had on students' careers. In particular, the views of the graduating students were useful in assessing the influence of higher education teachers and career advisors on their career. On a scale of one to five (1=very great deal of influence; 2=great deal of influence; 3=some influence; 4=little influence; and 5=no influence) the extent of influence which each of the elements had on their career is presented in Table 7.32.

Parents, other family members, mass media and university teachers were the four "critical other" influences on students' careers. Parents were perceived as having the most influence on students' careers. The statistical mean of 2.802 indicated the extent of this perceived influence. Nearly four out of ten (38.7 per cent) of students reported that parents had either a "very great deal", or a "great deal" of influence on their careers. Only 11.7 per cent of the students indicated that their family members did not have any influence on their career.

The second most important group of persons to have a great deal of influence on students' career choice were other family member. Nearly one out of ten (9.7 per cent) had reported that other family members had a very great deal of influence. The statistical mean of their influence of 2.863 indicated that other family members were the second most important influence on their career. Only one out of ten (10.4 per cent) had reported that other family members did not have any influence on their career.

The third most important factor to extent an influence on students' career choice was mass media. The statistical mean of 2.885 indicated that mass media was nearly as important as parents and other family members as having a great deal of influence on students' career choice. About one in ten (10.2 per cent) had reported that mass media had a very great deal of influence on their career. Only 10.7 per cent of the students had indicated that mass media did not have any influence on their career.

Table 7.32: Elements and Extent of Their Influence on Students' Career

Degree of Influence	Very Great Deal	Great Deal	Some Influence	Little Influence	No Influence	Mean of Influence
	1	2	3	4	5	
Parents	17.6%	21.1%	36.6%	13.0%	11.7%	2.802
Family Members	9.7%	29.0%	37.2%	13.7%	10.4%	2.863
Friends	6.6%	24.7%	34.6%	21.1%	13.0%	3.092
Mass Media	10.2%	28.2%	35.1%	15.8%	10.7%	2.885
Primary School Teachers	0.5%	5.3%	11.5%	29.0%	53.7%	4.300
Secondary School Teachers	2.8%	10.9%	24.9%	27.5%	33.8%	3.786
University Teachers	7.1%	27.2%	36.4%	15.8%	13.5%	2.934
University Career Advisers	3.1%	9.4%	21.6%	22.9%	43.0%	4.005

University teachers were the fourth important factor found to have an influence on students' (graduating students) careers. This was indicated by The statistical mean of 2.934. About one in fourteen (7.1 per cent) of the students considered that

university teachers had a very great deal of influence on their career. Only 13.5 per cent of the graduating students reported that university teachers did not have any influence on their career choice.

Those who have some influence on students career were their friends and secondary school teachers with statistical means of 3.092, 3.786 respectively. Only 13.0 per cent of the students indicated that their friends had no influence on their career. However, about one-third (33.8 per cent) of students had indicated that secondary school teachers had no influence on their career.

According to the perceptions of graduating students, their career advisers had little influence on their career (mean of 4.005). Nearly half (43.0 per cent) of the total number of graduating students thought that university career advisers had no influence on their career. About four in ten students had indicated that university career advisers had no influence on their career. Contrary to what was generally expected, this finding may indicate the considerable influence of university career teachers rather than university career advisers on students' careers.

Among the "critical others" to have little influence on students' careers were primary school teachers. More than half (53.7 per cent) of the students felt that primary school teachers had no influence on their career.

Null hypothesis 5: "There is no difference in the influence of university teachers and career advisors on students careers"

Although it was expected that university career teachers, instead of university teachers, would have a greater influence on higher education students' careers, the above finding suggests that university teachers had a greater influence on students career.

Since university teachers are considered by students to have considerable influence on their career, it would be important to examine whether university teachers generally perceived that they had influence on students' careers. The majority (96.5 per cent) of teachers perceived that they have at least some influence on students career (Table 7.33). Only a very small minority (3.5 per cent) of teachers thought that they had no influence on students careers. On the other hand, 13.5 per cent of students thought that university teachers had no influence on students careers (Table 7.32).

Table 7.33: Perception Of Teachers Of Their Influence On Students' Career

Extent of Higher Education Teachers Influence on Student's Career	Freq.	Percent.	Cum. Percent
Very Great Deal	2	3.5%	3.5%
Great Deal	14	24.6%	28.1%
Some Influence	36	63.2%	91.3%
Little Influence	3	5.3%	96.6%
No Influence	2	3.5%	100.0%
Total	57	100.0%	

Null hypothesis 6: On the whole, there is no difference in the extent of influence of individuals (parents, relatives, friends, primary school teachers, secondary school teachers, university teachers and university career advisors) and mass media"

Mass media has been reported as the third most important factor (statistical mean=2.885) to influence students career choice after parents and other family members. The finding suggests that mass media had greater influence than students friends, university teachers, secondary school teachers, university career advisers and primary school teachers.

Null hypothesis 7: "There is no difference in the perceptions of students, teachers and small business owner-managers that self employment in small business and private professional practice are more likely to offer intrinsic rewards"

The decision of a future career to a certain degree depends on the aspirants view of occupational values, intrinsic and extrinsic factors, reward by the organisation or employer. The intrinsic factors include opportunity to take responsibility, opportunity to be creative, intellectual challenge, freedom from supervision, and a sense of service to the community. On the other hand, extrinsic factors include high starting salary, job security, social standing and prestige, opportunity to travel and opportunity for long term promotion. Table 7.34 shows the the perception of intrinsic and extrinsic rewards offered by various employment organisations as perceived by students, teachers and small business owner-managers.

Table 7.34: Perception of Students, Teachers and Small Business Owner-managers (SBO) on Intrinsic and Extrinsic Rewards Offered by Various Organisations of Work (in Per Cent)

Intrinsic and Extrinsic Rewards	Self Employ. SBO	Self Employ. SPP	Work. in Lge Bus.	Work. in Pub Sect.	Work. in Any Org.
a) Opportunity to Take Responsibility					
-Students	23.9	28.2	17.8	3.8	26.2
-Teachers	47.4	5.3	5.3	3.5	38.6
-SBO	57.0	28.6	7.1	7.1	-
b) Opportunity to be Creative:					
-Students	33.6	37.2	22.1	0.8	6.4
-Teachers	61.4	8.8	7.0	1.8	21.1
-SBO	50.0	35.7	7.1	-	7.1
c) Intellectual Challenge					
-Students	17.6	47.6	28.5	0.3	6.1
-Teachers	10.5	33.3	40.4	5.3	10.5
-SBO	42.9	35.7	14.3	-	7.1
d) Freedom from Supervision					
-Students	49.4	33.6	8.7	6.4	2.0
-Teachers	86.0	8.8	1.8	-	3.5
-SBO	85.7	14.3	-	-	-
e) High Starting Salary:					
-Students	1.8	9.4	71.2	13.0	4.6
-Teachers	-	10.5	73.7	8.8	7.0
-SBO	14.3	14.3	64.3	-	7.1
f) Job Security					
-Students	4.8	3.6	18.1	66.7	6.7
-Teachers	1.8	-	3.5	89.5	5.3
-SBO	21.4	28.6	-	50.0	-
g) Opportunity for Long Term Promotion					
-Students	2.0	7.6	52.7	27.0	10.7

-Teachers	7.0	-	63.2	21.1	8.8
-SBO	7.1	7.1	71.4	14.3	-
h) Social Standing and Prestige					
-Students	1.3	37.7	37.2	15.5	8.4
-Teachers	3.5	17.5	56.1	12.3	10.5
-SBO	28.6	28.6	21.4	7.1	14.3
i) Opportunity to Travel					
-Students	2.0	19.1	64.4	4.1	10.4
-Teachers	5.3	7.0	66.7	3.5	17.5
-SBO	21.4	7.1	50.0	7.1	14.3
j) A Sense of Service to the Community					
-Students	6.1	12.7	4.6	42.7	33.8
-Teachers	15.8	1.8	1.8	38.6	42.1
-SBO	28.6	28.6	-	35.7	7.1

Opportunity to take responsibility, opportunity to be creative, intellectual challenge and freedom from supervision are major intrinsic rewards. To test the above hypothesis, each of these intrinsic rewards perceived as being offered by self employment in small business and small private professional practice are discussed below.

Students perceived that the opportunity to take responsibility was more likely to be achieved through self employment in a small private professional practice (28.2 per cent) and small business (23.9 per cent). Nearly half of the total number of teachers (47.4 per cent) considered that the opportunity to take responsibility was more likely to be gained through self employment in small business (47.4 per cent). However, only one in twenty (5.3 per cent) teachers perceived that self employment in a small private professional practice was more likely to offer the opportunity to take

responsibility. The majority (57.0 per cent) of small business owner-managers thought that self employment in a small business provided the opportunity to take responsibility. More than a quarter (28.6 per cent) of the total small business owner-managers perceived that self employment in a small private professional practice was more likely to offer such a reward.

On the whole, the opportunity to be creative is more likely to be achieved if an individual is self employed in a small business. This was perceived by about one in three (33.6 per cent) students, six in ten (61.4 per cent) teachers and one in two (50 per cent) small business owner-managers. Self employment in small private professional practices was also perceived as offering such a reward by about one in three students (37.2 per cent) and small business owner-managers (35.7 per cent): However, only a very small minority (8.8 per cent) of teachers thought that self employment in a small private professional practice was more likely to offer the opportunity to be creative.

A high proportion of students (47.6 per cent), teachers (33.3 per cent) and small business owner-managers (35.7 per cent) generally perceived that self employment in private professional practice was more likely to offer intellectual challenge. However, only a small proportion of students (17.6 per cent) and teachers (10.5 per cent) thought that self employment in small business was likely to provide an intellectual challenge. On the other hand, nearly half (42.9 per cent) of the total small business owner-managers considered that self employment in small business was more likely to offer such a challenge.

On the whole the majority of students (49.4 per cent), teachers (86.0 per cent) and small business owner-managers (85.7 per cent) perceived that self employment in a

small business was more likely to offer freedom from supervision. This was followed by self employment in small private professional practice.

Overall, it can be concluded that students, teachers and small business owner-managers generally held the view that self employment in small business was more likely to offer the opportunity to take responsibility, to be creative and free from supervision. Small business owner-managers generally regarded self employment in small business as being more likely to provide intellectual challenge. However, students and teachers did not think that self employment in small business was more likely to offer intellectual challenge. Although students and small business owner-managers generally agreed that self employment in small private professional practice was likely to offer most of the intrinsic rewards, teachers on the other hand generally considered that being self employed in small private professional practice would be less likely to offer the opportunities to take responsibility and be creative.

Null hypothesis 8: "There is no difference in the perception of students, teachers and small business owner-managers that being employed in large business organisations is more likely to offer extrinsic rewards"

High starting salary, job security, opportunity for long term promotion, social standing and prestige, opportunity to travel and a sense of service to the community are the rewards categorised as extrinsic. To test the above hypothesis, the perception of students, teachers and small business owner-managers on each of these extrinsic rewards seen as being more likely to be offered by self employment than being employed were discussed.

Table 7.34 suggests that a high proportion of students, teachers and small business owner-managers generally perceived that being employed in large business organisations would be more likely to offer them a high starting salary, opportunity

for long term promotion, social standing and prestige and the opportunity to travel. They also viewed large business organisations as being less likely to provide a sense of service to the community. None of the small business owner-managers and a small minority of teachers (3.5 per cent) perceived that working for large business organisations would be more likely to offer job security. However, besides working for public sector organisations which provided them job security, nearly one in five students considered that working for large business organisations would provide them with job security.

Null hypothesis 9: "There is no difference in the perception of students, teachers and small business owner-managers that being employed in public sector organisations is more likely to offer extrinsic rather than intrinsic rewards"

Table 7.34 shows that students, teachers and small business owner-managers generally saw working in public sector organisations as being least likely to provide the major intrinsic rewards of: opportunity to take responsibility; intellectual challenge; opportunity to be creative; and freedom from supervision.

With regard to extrinsic rewards, students, teachers and small business owner-managers generally perceived that working in public sector organisations was more likely to offer job security and a sense of service to the community; and less likely to offer the opportunity to travel. Besides the perception of self employment in small business as being least likely to provide social standing and prestige, students and teachers also viewed working for public sector organisations as being less likely to provide social standing and prestige. **Small business owner-managers perceived that working in public sector organisations was the least prestigious.**

Null hypothesis 10: "Small business owner-managers do not perceive that being self employed in small business or private professional practice is more likely to offer both intrinsic and extrinsic rewards"

On the whole, small business owner-managers considered that self employment in small business and small private professional practice provided the major intrinsic rewards. In addition, contrary to the perception of students and teachers, small business owner-managers saw self employment in small business and small private professional practice as being more likely to provide social standing and prestige. Besides working for public sector organisations which have a sense of service to the community, small business owner-managers perceived that self employment was also likely to provide them with a similar sense of service to the community. Unlike students and teachers, small business owner-managers thought that self employment was likely to provide them with job security.

2.5 HYPOTHESES CONCERNING THE PERCEPTION OF FEASIBILITY OF STARTING ONE'S OWN BUSINESS

There are two hypotheses concerning the perception of feasibility of starting one's own business to be tested.

Null hypothesis 1: " On the whole, there is no distinction between the major barriers to starting a business perceived by students who have chosen an entrepreneurial career and small business owner-managers"

Table 7.35 presents the major barriers to starting a business perceived by small business owner-managers and entrepreneurial students (students who had chosen to be self employed in their own business as their future career choice).

Table 7.35 Perceived Major Barriers to Starting a Business

Elements of Barrier To Starting A Business	Small SBO	Entrepre-Students
Lack of Finance	78.6%	92.3%
Lack of Knowledge How to Start A Business	57.1%	50.0%
Lack of Business Management Skill	57.1%	19.2%
Lack of Advice	35.7%	23.1%
Lack of Market Information	28.6%	38.5%
Lack of Technical or Product Knowledge	21.4%	46.2%
Lack of Business Idea	14.3%	7.7%
Parental Opposition	7.1%	19.2%
Lack of Interest and Commitment	-	-

More than three quarters (78.6 per cent) of the total of small business owner-managers and nine out of ten (92.3 per cent) of the students who had decided to run their own business perceived lack of finance as being their major barrier to starting their own business. The second major barrier was their lack of knowledge of how to start a business which was reported by nearly six out of ten (57.1 per cent) of small business owner-managers and one out of two students who aspired to run their own business. Although the third major barrier perceived by small business owner-managers (57.1 per cent) was lack of business management skill, entrepreneurial students (46.2 per cent) considered the lack of product knowledge as their third major barrier. It is interesting to note that entrepreneurial students who were business school students and were expected to have the skill of how to start a business still reported this (the lack of knowledge how to start a business) as their second major barrier. It is also interesting that none of the small business owner-managers and entrepreneurial students had reported lack of commitment as one of

their barriers to starting a business. On the whole, there was little difference between the perceptions of small business owner-managers and entrepreneurial students on the major barriers to starting a business.

Null hypothesis 2: "On the whole there is no difference between enterprising and non enterprising students on the perception of major barriers to starting a business"

There was generally no significant difference in the perception of the major barriers in starting a business among enterprising and non enterprising students except in respect of the lack of product knowledge, lack of business ideas and lack of commitment.

Table 7.36: Major Barriers To Starting A Business As Perceived By Enterprising And Non-Enterprising students

Elements of Barrier To Starting A Business	Enterprising Students (N=163)	Non-Enterprising (N=230)
Lack of Finance	83.4%	82.2%
Lack of Knowledge How to Start A Business	33.7%	36.5%
Lack of Business Management Skill	25.2%	24.3%
Lack of Advice	33.7%	33.9%
Lack of Market Information	30.7%	28.3%
Lack of Technical or Product Knowledge	29.6%	39.3%
Lack of Business Idea	22.7%	31.3%
Parental Opposition	6.1%	3.5%
Lack of Interest and Commitment	9.2%	23.0%

There was however a greater proportion of non enterprising students who perceived that the lack of business ideas, lack of product knowledge and lack of commitment were their major problems in starting a business (Table 7.36).

3.0 TESTING OF HYPOTHESES IN THE LEARNING MODEL FOR THE DEVELOPMENT OF ENTERPRISING BEHAVIOUR

This is the second part of the chapter and has as its objective the testing of hypotheses concerning the learning model for the development of enterprising behaviour. Five key areas in which the hypotheses were categorised are:

- a) The nature of the problems related to learning in higher education in Malaysia;
- b) Students;
- c) Teachers;
- d) Learning modes;
- e) Learning environment.

3.1 HYPOTHESES CONCERNING THE NATURE OF THE PROBLEMS RELATED TO LEARNING IN HIGHER EDUCATION

There are four hypotheses to be tested which are concerned with the nature of the problems related to learning in higher education in Malaysia.

Null hypothesis 1: "Students and teachers generally do not expect the competencies relevant to enterprising behaviour to be acquired to a great extent in higher education"

The major competencies selected which are relevant to enterprising behaviour are the following: creativity; persuasiveness; leadership; independence; analytical ability; imagination; ability to deal with ambiguity; achievement oriented;

persistence and self confidence. In order to assess the extent of each of the competencies students were expected to acquire in their learning process in higher education, the perceptions of new students and teachers were obtained. Use was made of a five point scale (1="not at all"; 5="a very great extent"). The statistical means of their perceptions are presented in Table 7.37.

Table 7.37: New Students' and Teachers' Perceptions of The Extent of the Competencies Students Are Expected To Acquire (Statistical Mean of their expectations)

Competencies Expected to be Acquired by Students	Mean for New Students (N=210)	Mean for Teachers (N=57)
a) Creativity	3.967	3.526
b) Persuasiveness	4.100	3.333
c) Leadership	4.048	3.754
d) Independence	4.514	3.789
e) Analytical Ability	4.110	3.895
f) Imagination	3.738	3.439
g) Ability to Deal With Ambiguity	3.543	3.404
h) Achievement Orientation	4.543	3.895
i) Persistence	4.467	3.649
j) Self Confidence	4.529	3.947

On the whole both students and teachers expected students to acquire a great measure of each of the above competencies relevant to enterprising behaviour. However, students expectations were greater than those of teachers' for all the competencies. The statistical mean expectation (above 4.00) of new students in Table 7.37 shows that students expected to acquire to "a very great extent" the following eight competencies: persuasiveness; leadership; independence; analytical ability; achievement orientation; persistence and self confidence. Students also

expected to acquire to "a great extent" creativity, imagination, and ability to deal with ambiguity. Teachers however generally expected students to acquire to "a great extent" all of the competencies, particularly analytical ability, achievement orientation and self confidence.

Null hypothesis 2: "There is no relationship between the expectation of enterprising and non enterprising students on the enterprising competencies to be acquired"

To test the above hypotheses, the Spearman Rank Correlation Coefficient, between the new students' enterprising behaviour and the extent they expected to acquire of each of the enterprising competencies, was determined and is presented in Table 7.38.

Table 7.38: The Relationship Between Enterprising Behaviour and the Extent of the Following Competencies Expected to be Acquired

Competencies Expected to be Acquired by the New Students (N=210)	Spearman Rank Correlation Coefficient	Significance
a) Creativity	0.2159	0.001*
b) Persuasiveness	0.2402	0.000*
c) Leadership	0.2100	0.001*
d) Independence	0.2224	0.001*
e) Analytical Ability	0.1908	0.003*
f) Imagination	0.0635	0.180
g) Ability to Deal with Ambiguity	0.0776	0.131
h) Achievement Orientation	0.1694	0.007*
i) Persistence	0.2725	0.000*
j) Self Confidence	0.0282	0.342

* P < 0.05

At the 0.05 significance level, the correlation coefficients between the variables in Table 7.38 suggest that there were positive correlations between the enterprising behaviour of new students and the extent of their expectations regarding the acquisition of the following competencies: creativity ($r=0.2159$, $P=0.001$); persuasiveness ($r=0.2402$, $P=0.000$); leadership ($r=0.2100$, $P=0.001$); independence ($r=0.2224$, $P=0.0001$); analytical ability ($r=0.1908$, $P=0.003$); achievement orientation ($r=0.1694$, $P=0.007$); and persistence ($r=0.2725$, $P=0.000$). The positive correlations suggest that the enterprising behaviour of new students was directly related to the positiveness of their expectation to acquire the above-mentioned competencies. Thus, the new students who were highly enterprising had greater expectations regarding the acquisition of the competencies of creativity, persuasiveness, leadership, independence, analytical ability, achievement orientation and persistence at their respective higher education institutions than those who were less enterprising. However, there was no significant relationship between enterprising behaviour and students expectation regarding the development of the competencies of imagination ($r=0.0635$, $P=0.180$), ability to deal with ambiguity ($r=0.0776$, $P=0.131$) and self confidence ($r=0.0282$, $P=0.342$) at 0.05 significance level.

It can be concluded that enterprising behaviour is related to students expectation regarding the acquisition of the competencies of creativity, persuasiveness, leadership, independence, analytical ability, achievement orientation and persistence. It can also be concluded that students' enterprising behaviour is not related to their expectation regarding the development of greater imagination, ability to deal with ambiguity and self confidence.

Null hypothesis 3: "There is generally no difference in the expectation of students and teachers on the learning modes practised in higher education"

On a five point scale (5 = Very great extent; 1 = Not at all), the extent of each of the major learning modes preferred by new students and small business owner-managers and practised at higher education institutions as perceived by graduating students and teachers are presented in Table 7.39.

Table 7.39: Learning Modes Preferred by New Students and Small Business Owner-managers, and Learning Modes Practised In Higher Education As Perceived By Graduating Students and Teachers (Statistical means of their perceptions)

Learning Modes Preferences/ Practised	Mean for Graduat- ing Students (N = 183)	Mean for New Students (N = 210)	Mean for Small Business Owner- Managers (N = 14)	Mean for Teachers (N = 57)
a) Learning objectives negotiated with the students rather than determined by lecturers.	2.131	3.33	3.50	1.526
b) Curriculum emphasis on practical, "hands on experience" and process rather than an emphasis on theory and knowledge.	2.628	3.448	4.00	2.825
c) The role of lecturer as facilitator who also learns rather than as an expert who hands down knowledge.	2.710	2.705	3.286	3.439
d) Students generating knowledge rather than as passive learners receiving				

knowledge.	3.115	3.448	3.857	2.930
e) Teaching methods negotiated with students rather than chosen by lecturers.	2.219	3.314	3.214	1.912
f) Learning by doing rather than learning in the classroom.	2.607	3.319	3.286	2.632
g) Learning sessions are structured and inflexible rather than unstructured and flexible.	2.596	3.390	3.856	2.965
i) Learning success is measured by self-development rather than by examination grades	2.060	3.619	4.500	1.912

a) Learning Objectives

New students (mean preference = 3.33) and small business owner-managers (mean preference = 3.50) indicated that they would prefer learning objectives to be negotiated with teachers rather than being fully determined by teachers. The statistical means of their preferences on the five point scale (5 = Fully negotiated with students; 1 = Fully determined by lecturers), indicates such a preference. On the other hand, the graduating students (mean preference = 2.131) perceived that learning objectives at the higher education institutions tended to be more determined by the teachers rather than negotiated with students. Teachers (mean = 1.526) however perceived that the learning objectives at higher education institutions were generally determined by teachers.

The findings clearly show that the needs of students (including small business owner-managers) with respect to who should determine the learning objectives had not been fully met by higher education. Students and small business owner-managers generally preferred a negotiation between teachers and students in setting learning objectives.

b) Curriculum Emphasis

An area where there was a mismatch between students' and teachers' perceptions was in respect of the emphasis given in the curriculum to theory or practice. On a five point scale, (5=the curriculum fully emphasises a practical, "hands on experience" and process; 1 = the curriculum fully emphasises theory and knowledge), new students (mean preference = 3.448) and small business owner-managers (mean preference = 4.00) would prefer the emphasis of the curriculum to be more towards a practical, "hands on experience" and process. Such preference was greater among small business owner-managers. On the other hand, the curriculum was perceived by graduating students (mean perception = 2.628) and teachers (mean perception = 2.825) as having a mixture of both theory and practice.

c) Role of Lecturers

There seems to be a difference in the preference of students and small business owner-managers regarding the role of teachers. On a five point scale (5 = Role of teacher as a "facilitator who also learns"; 1 = Role of teacher as an "expert who hands down knowledge"), new students (mean preference = 2.75) expressed that they would prefer teachers' roles to be at about the middle of the scale between an "expert who hands down knowledge and 'facilitator who also learns'". Small business owner-

managers (mean preference=3.286) however preferred teachers to be more of facilitators.

On the role of teachers in higher education, it appears that there was a great difference between the perception of graduating students and teachers. Teachers generally perceived that their role in higher education had been more as facilitators. However, in the opinion of students, the teachers' current role falls more or less between that of teachers as experts and facilitators. The perception of graduating students on the role of teachers indicates that the expectations of new students would generally be met while the expectations of small business owner-managers would not be fulfilled. On the other hand, based on the teachers' perception of their role, small business owner-managers' expectations would generally be met but the expectations of new students would not be fully met.

d) Role of Students

Students (statistical mean=3.448) and small business owner-managers (statistical mean=3.857) generally perceived that their role was more towards being a "generator" of knowledge rather than as learners who receive knowledge.

e) Teaching Modes

On a scale of one to five, the three elements of teaching being assessed were: firstly, the teaching methods adopted (1=teaching methods are fully determined by teachers; 5=teaching methods are fully negotiated with the students); secondly, whether it was generally "classroom learning" (value of one) or generally "learning by doing" (value of five); thirdly, whether teaching sessions were structured and

inflexible (value of one) or at the other end of the scale whether teaching sessions were unstructured and flexible (value of five).

New students (mean preference = 3.314) and small business owner-managers (mean preference = 3.214), to some extent, preferred teaching methods to be negotiated with them. In contrast, the graduating students (mean perception = 2.219) regarded that the teaching methods as practised in the higher education institutions, were to some extent chosen by teachers. Teachers (mean perception = 1.912) considered that teaching methods adopted were determined to a greater extent by them rather than negotiated with students.

With respect to their preference for "classroom learning" or "learning by doing", the new students (mean preference = 3.319) and small business owner-managers (mean preference = 3.286), in some measure, preferred learning by doing. The graduating students (mean perception = 2.607) and teachers (mean perception = 2.632) indicated that more or less equal emphasis on classroom learning as well as on learning by doing were given at higher education institutions.

Regarding teaching sessions, the new students (mean preference = 3.390), to some extent, preferred these to be unstructured and flexible. Small business owner-managers (mean preference = 3.856), to a greater degree, also preferred teaching sessions to be unstructured and flexible. On the other hand, the graduating students (mean perception = 2.596) seemed to indicate that the teaching sessions adopted lay between both extremes. However, teachers (mean perception = 2.965) thought that the teaching sessions adopted to some extent were unstructured and flexible.

f) Evaluation

On a scale of one to five (1=learning success is measured by examination grades; 5=learning success is measured by self development), new students (mean preference=3.619) preferred, to a large extent, that their learning success be measured by their self development rather than by examination grades. Small business owner-managers (mean preference=4.500), to a very great extent, preferred their success to be measured by self development. In contrast, the graduating students (mean perception=2.060) indicated that at higher education institutions their success was measured to a great extent by their examination grades to a great extent. To a greater extent, teachers (mean perception=1.912) perceived that the evaluation of learning success at higher education institutions was based in examination grades.

Overall, it can be summarized that there was a difference in the expectation of students and teachers on the learning modes practised. There was also a difference in the expectation of small business owner-managers and students on the learning modes practised in higher education.

3.2 TESTING OF HYPOTHESES CONCERNING STUDENTS

There are three hypotheses concerning students are tested in this section.

Null hypothesis 1: "There is no significant relationship between the enterprising behaviour of students and their preferred learning styles"

To test the above hypothesis and the following hypotheses in this section, the correlation coefficient between students' enterprising behaviour and the four learning styles were determined. The Spearman Correlation Coefficient between

their enterprising behaviour and preferred learning styles are presented in Table 7.40.

Table 7.40: The Relationship of Preferred Learning Styles of Teachers, Students and Small Business Owner-managers to Enterprising behaviour

Preferred Learning Styles	Teachers (N = 57)	Students (N = 393)	Small Business Owner-Managers (N = 14)
Activist (Significance)	0.2730 (0.020)*	0.2471 (0.000)*	0.6614 (0.005)*
Reflector (Significance)	-0.2007 (0.067)	-0.0604 (0.116)	-0.6775 (0.004)*
Theorist (Significance)	0.2132 (0.056)	0.1548 (0.001)*	-0.6417 (0.007)*
Pragmatist (Significance)	0.3811 (0.002)*	0.2053 (0.000)*	0.3043 (0.145)

* $P < 0.05$

The Spearman Correlation coefficient of 0.24711 ($P=0.0000$) between students' enterprising behaviour and their preference for an activist learning style suggests that there was a positive relationship between students' enterprising behaviour and their preference for this (activist) learning style. The relationship was statistically significant at the level of 0.05. The result suggests that the more enterprising the students are the greater will be their preference for an activist learning style.

On the relationship between students' enterprising behaviour and their preference for a reflector learning style, the Spearman Correlation Coefficient of -0.06048 ($P=0.116$) suggests that there was no significant relationship between the two variables. There was however a positive relationship between students' enterprising behaviour and their preference for a theorist learning style. The Spearman Correlation Coefficient of 0.1548 ($P=0.001$) suggests that the more enterprising the students are the greater will be their preference for a theorist learning style.

The finding also suggests that there was a positive relationship between students' enterprising behaviour and their preference for a pragmatist learning style. The Spearman Correlation Coefficient of 0.2053 ($P=0.000$) between students' enterprising behaviour and their preference for this learning style suggests that there was a positive relationship between the two variables and the relationship was statistically significant at the level of 0.05.

Null hypothesis 2: "There is no significant relationship between the enterprising behaviour of small business owner-managers and their preferred learning styles"

The Spearman Correlation Coefficient of 0.6614 ($P=0.005$) between the enterprising behaviour of small business owner-managers and their preference for an activist learning style suggests that the relationship was positively correlated at the 0.05 significance level. **It can therefore be concluded that the more enterprising the small business owner-managers are the greater will be his/her preference for an activist learning style.**

On the other hand, the Spearman Correlation Coefficient of -0.6775 ($P=0.004$) shows that there was a negative correlation between the enterprising behaviour of small business owner-managers and their preference for a reflector learning style. The relationship was significant at the 0.05 significance level. Hence, **the finding suggests that the more enterprising small business owner-managers are the less would be their preference for a reflector learning style.**

With regard to the relationship between the small business owner-managers' enterprising behaviour and their preference for a theorist learning style, the Spearman Correlation Coefficient of -0.6417 ($P=0.007$) suggests that the relationship was negatively correlated at the 0.05 level of significance. Thus, **the**

more enterprising the small business owner-managers are the lower will be their preference for a theorist learning style.

However, the Spearman Correlation Coefficient of 0.3043 ($P=0.145$) between the small business owner-managers' enterprising behaviour and their preference for a pragmatist learning style suggests that although there was a positive relationship between the two variables, the relationship was however not statistically significant at the 0.05 level.

Null hypothesis 3: "There is no difference in the preferred learning styles of enterprising students and small business-owner-managers"

To test the above hypothesis, Tables 7.41 to 7.44 present the frequency distribution of enterprising students and small business owner-managers according to the four types of learning styles: activist; reflector; theorist; and pragmatist.

Table 7.41: The Frequency Distribution Of Enterprising Students' And Small Business Owner-managers' Preference For An Activist Learning Style

Extent Of Preferences	Students		SBO	
	Freq.	Percent	Freq.	Percent
Very Strong Pref.	30	18.4	6	50.0
Strong Pref.	61	37.4	6	50.0
Moderate Pref.	47	28.2	-	-
Low Pref.	20	12.3	-	-
Very Low Pref.	5	3.1	-	-
Total	163	100.0	12	100.0

Table 7.41 shows that all enterprising small business owner-managers have a strong or very strong preference for an activist learning style. Nearly one in five (18.4 per cent $N=30$) small business owner-managers had shown a very strong preference for an activist learning style and nearly four in ten (37.4 per cent $N=61$) had shown a very strong preference for this style. Although the majority of enterprising students had a strong or very strong preference for an activist learning style, there were

however 15.4 per cent (N=25) of them who had either a low or very low preference for an activist learning style. The finding, on the whole, strongly indicates that both enterprising students and small business owner-managers have a strong preference for an activist learning style.

On their preference for a reflector learning style, none of the small business owner-managers had shown a strong or very strong preference for this. However, there were about four in ten (39.2 per cent N=64) enterprising students who had shown a strong or very strong preference for a reflector learning style (Table 7.42).

Table 7.42: The Distribution Of Enterprising Students' And Small Business Owner-managers' Preference For A Reflector Learning Style

Extent Of Preference	Students		SB Owner-Managers	
	Freq.	Percent	Freq.	Percent
Very Strong Pref.	9	5.5	-	-
Strong Pref.	55	33.7	-	-
Moderate Pref.	54	33.1	8	66.7-
Low Pref.	32	19.6	3	25.0
Very Low Pref.	13	8.0	1	8.3
Total	163	100.0	12	100.0

On the whole, the majority (66.7 per cent N=8) of small business owner-managers had a moderate preference for a reflector style, while the majority of enterprising students had a moderate, low or very low preference for this style. The finding indicates that, the majority of enterprising students and small business owner-managers do not have a strong preference for a reflector learning style.

Table 7.43: The Distribution Of Enterprising Students' And Small Business Owner-managers' Preference For A Theorist Learning Style

Extent Of Preference	Students		SB Owner-Managers	
	Freq.	Percent	Freq.	Percent
Very Strong Pref.	21	12.9	-	-
Strong Pref.	35	21.5	-	-
Moderate Pref.	57	35.0	6	50.0
Low Pref.	36	22.1	4	33.3
Very Low Pref.	14	8.6	2	16.7
Total	163	100.0	12	100.0

Like their preference for a reflector learning style, none of the enterprising small business owner-managers had shown a strong or very strong preference for a theorist learning style (Table 7.43). Three in ten enterprising students had however shown either a strong or very strong preference for a theorist learning style. Nonetheless the majority of enterprising students had a moderate, low or very low preference for a theorist learning style. It is important to note again that elsewhere in this study it has been found that there is a positive correlation between students' enterprising behaviour and their preference for a theorist learning style.

Table 7.44: The Distribution Of Enterprising Students' And Small Business Owner-managers' Preference For A Pragmatist Learning Style

Extent Of Preference	Students		SB Owner-Managers	
	Freq.	Percent	Freq.	Percent
Very Strong Pref.	16	9.8	5	41.7
Strong Pref.	54	33.1	7	58.3
Moderate Pref.	60	36.8	-	-
Low Pref.	26	16.0	-	-
Very Low Pref.	7	4.3	-	-
Total	163	100.0	12	100.0

Regarding the enterprising students and small business owner-managers preference for a pragmatist learning style, the results (Table 7.44) show another interesting finding. All enterprising small business owner-managers had either a strong or very strong preference for a pragmatist learning style: but it should be noted that all the

small business owner-managers (whether enterprising or not) had a strong preference for a pragmatist learning style. Only just over four in ten (42.9 per cent $N=70$) of enterprising students showed a strong or very strong preference for pragmatist learning style. The majority of enterprising students showed a moderate, low or very low preference for this style of learning.

In summary, the result indicates that both enterprising students and enterprising small business owner-managers have a strong preference for an activist learning style and a moderate, low or very low preference for reflector and theorist learning styles. The findings also indicate that small business owner-managers generally prefer a pragmatist learning style. On the other hand, the more enterprising students generally have a strong preference for a pragmatist learning style.

3.3 HYPOTHESES CONCERNING TEACHERS

Two hypotheses concerning teachers are tested in this section.

Null hypothesis 1: "There is no significant relationship between teachers' enterprising behaviour and their preferred learning styles"

The Spearman Correlation Coefficient of 0.2730 ($P=0.002$) between teachers' enterprising behaviour and their activist learning style suggests that there was a positive relationship between the two variables. The relationship was found to be statistically significant at the 0.05 significance level (Table 7.40).

With respect to the relationship between teachers' enterprising behaviour and their preference for a reflector learning style, the Spearman Correlation Coefficient of - 0.2007 ($P=0.067$) suggests that at the 0.05 significance level, there was no significant relationship between teachers' enterprising behaviour and their preference for a

reflector learning style (Table 7.40). Similarly, the Spearman Correlation Coefficient of 0.2132 ($P=0.056$) between teacher's enterprising behaviour and their preference for a theorist learning style suggests that at the significance level of 0.05 there was no relationship between teachers' enterprising behaviour and their preference for a theorist learning style (Table 7.40).

On the relationship between teachers' enterprising behaviour and their preference for a pragmatist learning style, the Spearman Correlation Coefficient of 0.3811 ($P=0.002$) shows that there was a positive relationship between teachers' enterprising behaviour and their preference for a pragmatist learning style. The relationship was statistically significant at the 0.05 significance level (Table 7.40).

Overall the findings suggest that there was a positive relationship between teachers' enterprising behaviour and their preference for activist and pragmatist learning styles. However, there was no relationship between teachers' enterprising behaviour and their preference for a theorist or reflector learning style.

3.3.1 Specific Teaching Methods Used

Null hypothesis 2: "There is no significant relationship between teachers' enterprising behaviour and their preferred teaching methods used"

To test the above hypothesis, the Spearman Correlation Coefficient between teachers' enterprising behaviour and the extent of each of the teaching methods used is presented in Table 7.45 below.

Table 7.45: The Relationship between Teachers Enterprising behaviour and The Extent of the Teaching Methods Used

Teaching Methods Used by Teachers (N=57)	Spearman Rank Corr. Coeff.	Significance
a) Lectures	-0.0846	0.266
b) Case Studies	0.0387	0.387
c) Role Playing Exercises	0.0474	0.363
d) Programmed Learning	0.1902	0.078
e) Written Assignments and Projects Given by Lecturer	-0.2228	0.048*
f) "Real Problem" Simulations	0.1642	0.111
g) Classroom discussions on models, concepts and theories	-0.2516	0.030*
h) Business Games or Other Competitive Exercises	0.2479	0.031*
i) Project Work on Real Problems	0.0600	0.329
j) Observing a Group at Work	0.1920	0.076
k) Field Study (Trips)	0.2425	0.035*
l) Small Business Owner-Managers as Guest Speakers or Discussants	0.3599	0.003*
m) Civil Servants as Guest Speakers or Discussants	0.2870	0.015*
n) Corporate Managers as Guest Speakers or Discussants	0.1777	0.093
o) Small Private Professional Practitioners as Guest Speakers or Discussants	0.2429	0.034*
p) Watching Films or Videos	0.0034	0.490

* P < 0.05

The Spearman correlation coefficients in Table 7.45 reveal that there are positive relationships between teachers' enterprising behaviour and the range of the teaching methods adopted during the last two semesters. At the 0.05 significance level, it was found that the more enterprising the teachers were, the greater the extent of their adoption of: business games or other competitive exercises ($r=0.2479$ $P=0.031$), field studies or trips ($r=0.035$ $P=0.035$), small business owner-managers as guest speakers or discussants ($r=0.3599$ $P=0.003$), civil servants as guest speakers or discussants ($r=0.2870$ $P=0.015$), and owners of small private professional practices as guest speakers or discussants ($r=0.2429$ $P=0.034$). Of these teaching methods used, the highest direct relationship ($r=0.3599$) was between teachers enterprising behaviour and their adoption of small business owner-managers as guest speakers or discussants.

On the other hand, at the 0.05 significance level, teachers' enterprising behaviour were found to be negatively correlated to teachers' adoption of the following teaching methods: written assignments and projects given by lecturers ($r=-0.2228$, $P=0.048$); and classroom discussion on models, concepts and theories ($r=-0.2516$, $P=0.030$). The relationship suggests that the less enterprising teachers were associated with their greater adoption of written assignments or classroom discussion on model, concept and theory.

On the other hand, teachers' enterprising behaviour was not found to be significantly related to their adoption of other teaching methods - lectures, case studies, role playing exercises, programmed learning, real problem simulations, project work on real problems, observing groups at work, corporate managers as guest speakers or discussants and watching films or videos. Table 7.46 indicates the extent of each of the specific teaching methods being adopted by teachers.

Table 7.46: The Extent Of Each Of The Specific Teaching Methods Being Adopted By Teachers (in per cent)

Teaching Methods	Not At All	Little Extent	Moderate Extent	Great Extent	Very Great Extent
Lecture	-	-	12.3%	56.1%	31.6%
Written Assignments	-	3.5%	26.3%	52.6%	17.5%
Classroom Discussions on models	1.8%	8.8%	40.4%	42.1%	7.0%
Case Study	8.8%	28.1%	43.9%	15.8%	3.5%
Role Playing	35.1%	31.6%	26.3%	7.0%	-
Programmed Learning	22.8%	22.8%	36.8%	15.8%	1.8%
Real Problem Simulations	15.8%	35.1%	33.3%	14.0%	1.8%
Business Games	47.4%	31.6%	12.3%	7.0%	1.8%
Project Work on Real Problem	19.3%	14.0%	43.9%	17.5%	5.3%
Field Trips	47.4%	24.6%	15.8%	10.5%	1.8%
Small Business Owner as Guest-Speakers	52.6%	19.3%	19.3%	3.5%	5.3%
Corporate Managers as Speakers	43.9%	26.3%	19.3%	10.5%	-
Owner of Small Private Professional Practice As Speakers	52.6%	28.1%	8.8%	10.5%	-
Observing A Group At Work	42.1%	21.1%	21.1%	12.3%	3.5%
Watching Film	38.6%	33.3%	24.6%	3.5%	-

The teaching methods which were widely adopted in large measure were the lecture method, written assignments and projects given by teachers and classroom discussions on models, concepts and theories. There were 87.7 per cent (N=50) of

teachers who adopted lecture methods to a great extent or very great extent in their teaching activities. Around seven out of ten (70.1 per cent N=40) teachers adopted to a great extent or a very great extent the giving of written assignments and projects. Nearly half (49.1 per cent N=28) of the teachers adopted to a great extent of classroom discussions on models, concepts and theories in their teaching strategies.

Project work on real problems, case studies, real problem simulation, and programmed learning were being moderately adopted by teachers in their teaching strategies. Observing groups at work and role playing were used to a lesser extent by teachers in their teaching strategies.

Little attention was paid to business games, field trips and watching films or videos in teachers' teaching strategies. Teachers seemed to depend greatly if not solely on academicians in teaching and had made little use of practitioners such as small business owner-managers, small private professional practitioners, corporate managers and civil servants as guest speakers or discussants. For example, 52.6 per cent (N=30) of the teachers had never invited any small business owner-managers or owners of small private professional practices during the last one year of their teaching career; and 43.9 per cent (N=25) of the teachers had never invited any corporate managers as their guest speakers or discussants during their last one year of teaching career.

3.4 TESTING OF HYPOTHESES CONCERNING LEARNING MODES

There are eight hypotheses concerning learning modes to be tested in this section. To test these hypotheses, the Spearman Rank Correlation Coefficient between

enterprising behaviour and the extent of their preferences for different learning modes was determined. The results are presented in Table 7.47 below.

Table: 7.47: The Relationship Between Students' Enterprising behaviour and Their Learning Mode Preference

Learning Modes Preferences:	Spearman Rank Corr. Coefficient	Significance
a) Learning objectives negotiated with the students rather than determined by lecturers	-0.0331	0.317
b) Curriculum emphasis on practical "hands on experience" and process rather than on theory and knowledge.	-0.0304	0.331
c) The role of lecturer as facilitator who also learns rather than as an expert who hands down knowledge.	-0.0423	0.271
d) Students generating knowledge rather than as learners receiving knowledge.	0.0352	0.306
e) Teaching methods negotiated with students rather than chosen by lecturers.	-0.0211	0.380
f) Learning by doing rather than learning in the classroom	0.1533	0.013*
g) Learning sessions are structured and inflexible rather than unstructured and flexible	0.1293	0.031*
h) Learning success is measured by self-development rather than by examination grades.	0.0465	0.252

* $P < 0.05$

Null hypothesis 1: "There is no relationship between students' enterprising behaviour and their preference for learning objectives to be negotiated with students rather than determined by teachers"

With respect to the relationship between students' enterprising behaviour and their preference for learning objectives to be negotiated with students rather than determined by teachers, the Spearman Correlation Coefficient of -0.0331 ($P=0.317$) in Table 7.47 shows that there was no relationship between students' enterprising behaviour and their preference for learning objectives to be student negotiated. However, new students generally have a strong preference (mean preference=3.33) for learning objectives to be negotiated.

Null hypothesis 2: "There is no relationship between students' enterprising behaviour and their preference for curriculum emphasis to be on practice, 'hands on experience' and process rather than on theory and knowledge"

The Spearman Correlation Coefficient of -0.0304 ($P=0.331$) between students' enterprising behaviour and their preference for curriculum emphasis suggests the absence of a relationship between the two variables. However, the statistical mean preference (mean preference=3.448) suggests that new students generally would have a strong preference for a curriculum emphasis on practical, "hands on experience" and process rather than on theory and knowledge. The data suggests that the above null hypothesis cannot be rejected. However, the data suggests that new students generally have a strong preference for a curriculum emphasis on practical, "hands on experience" and process rather than on theory and knowledge.

Null hypothesis 3: "There is no relationship between students' enterprising behaviour and their preference for the role of teacher as facilitator who also learns rather than as an expert who hands down knowledge"

The Spearman Correlation Coefficient of -0.0423 ($P=0.271$), between students' enterprising behaviour and their preference for curriculum emphasis indicates that there was no relationship between the two variables.

Null hypothesis 4: "There is no relationship between students' enterprising behaviour and their preference for the role of students as generators of knowledge rather than as learners who receive knowledge"

Regarding the role of students, there seemed to be no relationship between students' enterprising behaviour and their preference for the role of students as generators of knowledge rather than as learners receiving knowledge. The Spearman Correlation of 0.0352 ($P=0.306$) between the two variable suggests the absence of a relationship.

Null hypothesis 5: "There is no relationship between students' enterprising behaviour and their preference for teaching methods to be negotiated with students rather than chosen by teachers"

On the teaching methods used, the Spearman Correlation of -0.0211 ($P=0.380$) between students' enterprising behaviour and their preference for teaching methods to be student negotiated rather than chosen by lecturers suggests that there was no relationship between the two variables. The statistical mean of 3.314 for the new students' preference for teaching methods to be negotiated suggests that new students generally prefer teaching methods negotiated with students. The data suggests that the above null hypothesis cannot be rejected.

Null hypothesis 6: "There is no relationship between students' enterprising behaviour and their preference for learning by doing rather than in the classroom"

With regard to the relationship between new students' enterprising behaviour and their preference for learning by doing rather than in the classroom, the Spearman Correlation Coefficient of 0.1533 ($P=0.013$) suggests that highly enterprising

students preferred learning by doing more than learning in the classroom. The statistical mean (mean preference = 3.319) of new students preferences shows that new students generally prefer more learning by doing than learning in the classroom. However, as the correlation shows, the more enterprising the students are the greater will be their preference for learning by doing.

Null hypothesis 7: "There is no relationship between students' enterprising behaviour and their preference for learning sessions to be unstructured and flexible rather than structured and flexible"

The Spearman Correlation Coefficient of 0.1293 ($P=0.031$) shows a positive relationship between students' enterprising behaviour and their preference for unstructured and flexible learning sessions. The statistical mean preference of new students also suggests that they generally prefer the unstructured and flexible class sessions.

Null hypothesis 8: "There is no relationship between students' enterprising behaviour and their preference for learning success to be measured by self development rather than measured by examination grades"

On the evaluation of success, the Spearman Correlation of 0.0465 ($P=0.252$) suggests that there was no relationship between students' enterprising behaviour and their preference for learning success to be measured by self development rather than by examination grades. But, the statistical mean preference (mean = 3.619) of the new students' for success to be measured by self-development suggests that new students generally prefer that success be measured by self development.

3.5 TESTING OF HYPOTHESES CONCERNING THE LEARNING ENVIRONMENT

Altogether there are three hypotheses concerning learning environment tested in this section.

Null hypothesis 1:"There is no difference in the perception between students and teachers that their 'College/university is enterprising'"

The perception of students and teachers on whether their "college/university is enterprising" is presented in Table 7.48.

Table 7.48: Perception Of Graduating Students And Teachers That Their "College/university is enterprising"

Value Label	Val.	Students Freq.	Percent	Teachers Freq.	Percent
Strongly Disagree	1	10	5.5	6	10.5
	2	24	13.1	7	12.3
	3	46	25.1	7	12.3
	4	52	28.4	16	28.1
	5	31	16.9	17	29.8
	6	14	7.7	4	7.0
Strongly Agree	7	6	3.3	-	-
Total		183	100.0	57	100.0
Mean Value		3.75		3.75	

With regard to students' and teachers' perception of whether their college/university was enterprising, there seemed to be no major difference in the views of students from those of teachers. The statistical mean of students' perception (mean = 3.75) was similar to The statistical mean perception of teachers.

Null hypothesis 2:"There is no difference in the perception between students, and teachers that their 'Department/school is enterprising'"

The perception of students and teachers of whether their department/school was enterprising is presented in Table 7.49.

Table 7.49: Perception Of Graduating Students And Teachers That Their "Department/school is enterprising"

Value Label	Val.	Students		Teachers	
		Freq.	Percent	Freq.	Percent
Strongly Disagree	1	7	3.8	4	7.0
	2	24	13.1	5	8.8
	3	51	27.9	14	24.6
	4	43	23.5	10	17.5
	5	40	21.9	18	31.6
	6	11	6.0	4	7.0
Strongly Agree	7	7	3.8	2	3.5
Total		183	100.0	57	100.0
Mean		3.79		3.90	

With respect to students' and teachers' perception of whether their department/school was enterprising, there seemed to be no significant difference in the views of students from those of teachers. Although the statistical mean of students perception (mean=3.79) was less than that of The statistical mean of teachers' perception (mean=3.90), the difference was rather small.

Null hypothesis 3:"There is no association between students' enterprising behaviour and their perception of their learning environment"

The Spearman Correlation Coefficients between the graduating students' enterprising behaviour and their perceptions that their "college/university" and "department/school" are "enterprising" suggest that **there are positive relationships between their students' enterprising behaviour and their views that their higher education institution and department are enterprising.**

Table 7.50: The Relationship Between Graduating Students' Enterprising Tendency and Their Perception Of Learning Environment

Learning Environment Factors	Spearman Rank Correlation Coefficient	Significance
a) The college/university is enterprising (N = 183)	0.1246	0.046*
b) The department/school is enterprising (N = 183)	0.1419	0.028*

* $P < 0.05$

Table 7.50 shows that at the 0.05 significance level the positive relationships were significant. The findings suggest that more enterprising students seem to view that their learning environment is enterprising.

4.0 CONCLUSION

Overall, 70 hypotheses were tested: 51 relating to the first model and 19 relating to the second model. The findings are brought together as a summary in the following chapter (Chapter 8).

REFERENCE

Bryman, A. and Cramer, D. (1990) *Quantitative Data Analysis for Social Scientists* (London: Routledge).

CHAPTER EIGHT

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

1.0 SUMMARY OF FINDINGS AND CONCLUSIONS

This thesis is concerned with the process of developing enterprising and entrepreneurial graduates in higher education in Malaysia. The importance of higher education in the national development of Malaysia was discussed in Chapter 2. The role of higher education in achieving the New Economic Policy (1971-1990) and the challenges facing it in meeting the objectives of the New Development Policy (1991-2000) have been highlighted, in particular the objective of restructuring the employment pattern and the creation of an entrepreneurial Bumiputra community.

Since the launching of the New Economic Policy in 1971, little progress has been made in tackling the problem, particularly in respect of influencing a significantly large number of Bumiputras to become self-employed in their own business. Although higher education had been expected to play an important role in the creation of an entrepreneurial Bumiputra community, their response to the challenge was rather late and not massive. The recent issue of graduate unemployment has further provided greater challenges to higher education in the form of shaping students careers towards entrepreneurship. The New Development Policy, which was introduced in 1991, has also recognised the importance of higher education in contributing to the achievement of the development priorities through generating enterprising graduates in general, and entrepreneurial Bumiputra graduates in particular. The issue has been argued as being crucial to the country's national development priorities in restructuring the employment pattern and in creating an entrepreneurial Bumiputra community.

Higher education has responded to the challenge by designing programmes aimed at developing enterprising and entrepreneurial graduates who would aspire to become self-employed in their own business. However, there is evidence that these programmes have limitations in their design and are not based on a very clear conceptual understanding of the processes and influences that shape entrepreneurship and a career towards self-employment. There is also seems to be little understanding of the relationship between enterprising behaviour and entrepreneurship so that programmes aimed at developing such behaviour have not always produced the outcome desired. Furthermore, there seems to be little understanding of the way enterprising individuals learn and of the influences of the process of learning upon the development of enterprising behaviour.

To address these issues, two models have been developed in this thesis. The first model is a broad model for the development of enterprising behaviour and entrepreneurship which argues centrally that enterprising behaviour plays a preconditioning role of entry into entrepreneurship. The second model is a learning model which shows the influences of the learning process on enterprising behaviour as an outcome of learning. Fully testing the two models could offer some contribution to the systematic design and implementation of programmes for the development of enterprising behaviour and entrepreneurship among graduates in higher education in Malaysia. Due to the constraints discussed in Chapter 6, it was not possible to test fully the two models: the research therefore was exploratory, rather than explanatory. This exploratory research aimed to provide a strong basis for future explanatory research focused upon the ultimate testing of the two models. At this stage, an attempt was made to verify the key assumptions made by testing the relationships between certain key variables and enterprising behaviour and by testing the key influences on career aspirations towards entrepreneurship.

The summary of the major findings and conclusions for each of the models are taken in turn.

2.0 MAJOR FINDINGS AND CONCLUSIONS REGARDING THE MODEL FOR THE DEVELOPMENT OF ENTERPRISE AND ENTREPRENEURSHIP

It has been suggested earlier that to achieve the national development objective of restructuring employment, there is a need to ensure that the employment pattern in various sectors of the economy and occupations fully represents the ethnic composition of Malaysia. In addressing the issue of developing enterprising and entrepreneurial graduates, certain key assumptions were made concerning the existence of the problem and possible differences in career aspirations among students from different ethnic groups.

Overall, the study lends support to the existence of the problem of restructuring the employment pattern in creating an entrepreneurial Bumiputra community in Malaysia. The employment pattern of parents of Malay and other indigenous (Bumiputra) students was concentrated in the public sector, while that of the Chinese was focused within the small business sector. With respect to the career aspirations among students of the various ethnic groups, the findings were mixed. The study does not lend support to the argument that Malays are less likely to choose self-employment than Non-Malays. But it shows that Malays have a greater preference for employment in the public sector than for any other form of employment. The study also shows that the Chinese have a strong preference to work in non-public sector organisations rather than in the public sector.

2.1 INFLUENCES ON THE PROCESS OF DEVELOPING ENTERPRISING BEHAVIOUR AND ENTREPRENEURSHIP

The broad model presented has attempted to show the influences at each stage of entrepreneurship development and their relationship to enterprising behaviour. Enterprising behaviour has been argued as a pre-condition for entrepreneurship and as being subject to the influence of culture, certain personal background characteristics, socialisation and learning through work experience.

The research however does not lend support to the argument that enterprising behaviour is influenced by culture, or certain personal background characteristics (gender and parents level of education) or by an entrepreneurial family background. The research does, however, reveal the importance of the experience of working alongside entrepreneurial parents or small business owner-managers as an influence upon an individual's enterprising behaviour. Furthermore, the research lends support to the possibility of developing enterprising behaviour via work experience in both small and large business organisations. In particular, it indicates the importance of working alongside a small business owner-manager (who may also be a parent) in stimulating the development of enterprising behaviour.

2.2 THE RELATIONSHIP BETWEEN ENTERPRISING BEHAVIOUR AND ENTREPRENEURIAL CAREER ASPIRATIONS

The research appears to support the argument that enterprising behaviour is a pre-condition for aspiring towards an entrepreneurial career. Enterprising students are more likely to choose self-employment in small business than less enterprising students and the less enterprising students are more likely to choose employment in the public sector. Since the findings appear to suggest that enterprising behaviour is a pre-condition for aspiration towards an entrepreneurial career, it would appear that by creating an enterprising community this would be more likely to generate

individuals who aspire to entrepreneurship, and therefore underpin the long term supply of entrepreneurs.

2.3 CAREER PRECIPITATING EVENTS

The research does not support the argument that those who have entrepreneurial parents are generally more enterprising. It does, however, confirm that those with entrepreneurial parents are more likely to choose self-employment than those without such a background. The study also supports the argument that those who have had experience in working alongside a small business owner-manager are more likely to choose self-employment than those who have not. Thus the experience of working alongside a small business owner- manager seems to influence not only the development of enterprising behaviour but also an individual's career aspirations towards entrepreneurship.

It has been argued that influencing the perception of desirability towards self employment in business or private professional practice among those who themselves have an influence over students' careers may ultimately shape students' career aspirations towards entrepreneurship. The research finds that parents, other family members, mass media and higher education teachers have a strong influence on a student's career aspirations. The finding does not however support the argument that college career advisers have a greater influence on students' careers than college teachers.

2.4 THE PERCEPTION OF FEASIBILITY

The research finds that lack of finance, lack of the knowledge of how to start a business and lack of product knowledge are perceived as the three major barriers to

starting a business among entrepreneurial students. Small business owner-managers on the other hand perceive that lack of finance, lack of knowledge of how to start a business and lack of management skills are their main barriers.

3.0 SUMMARY OF FINDINGS AND CONCLUSIONS REGARDING THE LEARNING MODEL FOR DEVELOPING ENTERPRISING BEHAVIOUR

Although higher education in Malaysia is expected to generate enterprising and entrepreneurial students, historically it has failed so to do. The key basic issues in this respect are: whether higher education is considered a place where students could develop their enterprising behaviour; and whether there are mismatches between students' and teachers' expectations on the major aspects of learning outcome and modes of learning.

The research lends support to the suggestion that enterprise is perceived as having a place in higher education. However, the findings indicate mismatches of expectations between students and teachers as to the degree to which students are expected to acquire enterprising competencies in higher education. Furthermore, highly enterprising students have a greater expectation of developing enterprising behaviour in higher education than less enterprising students.

The research demonstrates the existence of mismatches between students' and teachers' expectations on major aspects of learning outcome and modes. Students generally expect a "*student centred*" approach to learning and teaching rather than the "*teacher centred*" approach seemingly practised in higher education. Students were expected by teachers to develop their enterprising behaviour in higher education: but the learning modes adopted by teachers do not appear to fully meet the needs of students and small business owner-managers, let alone those of enterprising students. The findings suggest also that enterprising students generally

have a greater preference for "*learning by doing*" rather than learning in the classroom. Although it can be argued that learning by doing may also be implemented in the classroom environment, the findings however, suggest that enterprising students seem to show less preference for learning in the classroom.

It has also been argued that the overall model should predict that if certain elements of an enterprising approach exist (the teachers are enterprising in their approach; the learning modes are enterprising; the learning environment is enterprising; and the learning approach of students' is enterprising) then the outcome will also be enterprising student behaviour.

The research lends support to the argument that enterprising students have distinctive learning style preferences. While enterprising students show a distinctive preference for activist and pragmatist learning styles, they also show a strong preference for a theorist learning style and a low preference for a reflector learning style. Enterprising small business owner-managers have the following distinctive learning styles: a strong preference for activist and pragmatist learning styles; and a moderate, low or very low preference for reflector and theorist learning styles. Thus, there are some differences between owner-managers and enterprising students. Enterprising students' preference for activist learning styles helps to explain another finding in this study that enterprising students have a greater preference for the mode of "*learning by doing*" than their less enterprising counterparts. One possible explanation for the enterprising students' preference for a theorist learning style is that it was due to the emphasis placed in higher education upon learning via theories and concepts. Teachers in general seem to prefer teaching by lecture methods, written assignments and classroom discussions of models, concepts and theories.

The study supports the argument that enterprising teachers have distinctive learning styles with strong preferences for activist and pragmatist approaches. This is reflected in their adoption of the following teaching methods: business games; field trips; and the involvement of small business owner-managers, civil servants and owners of small private professional practices in their modes of teaching.

A very important finding of the research is however that students in general prefer a "*student centred*" approach to learning as against the "*teacher centred*" approach. However, as noted above, enterprising students clearly show a greater preference than their less enterprising counterparts for "*learning by doing*" rather than "*learning in the classroom*"; and for learning sessions that are flexible and less structured.

Finally in respect of views relating to the learning environment, it would appear that neither students nor teachers generally have views as to whether or not higher educational institutions and their departments are enterprising.

4.0 IMPLICATION OF THE STUDY RELATING TO THE MODEL OF DEVELOPMENT OF ENTERPRISE AND ENTREPRENEURSHIP

There are some major implications arising from the "*exploratory*" tests of the model.

The result lends support to the view that it may be possible to develop enterprising behaviour among individuals of different cultural and ethnic background in order to form a greater pool of enterprising individuals in the community. Particularly also enterprising individuals who share some common behavioural characteristics with entrepreneurs who may themselves not become entrepreneurs, unless their careers are influenced and shaped towards entrepreneurship.

There may therefore be scope for shaping enterprising behaviour and career aspirations towards entrepreneurship via programmes designed to provide the experiences which stimulate and enhance the individuals enterprising behaviour and at the same time influence the individual's career in this direction. A key finding in this respect is that of the importance of the experience of working alongside a small business owner-manager. It may therefore be possible to develop enterprise and entrepreneurship even in a community without a long tradition of entrepreneurship provided that young people are exposed to the types of experiences that stimulate their enterprising behaviour and influence their career towards entrepreneurship.

The research underlines the importance of perceived occupational values in aspiration towards entrepreneurship. It also underlines the important influence of the media. One of the ways therefore to influence an individual's career towards entrepreneurship would be via effective support from the mass media to popularize what it means to be self employed in business, the desirability of the rewards to be derived from self employment as well as the positive role small business and entrepreneurs play in society. The findings underline the importance of mass media as a potential means of influencing individuals' careers not only directly but also via those who have an influence on students' careers: particularly, parents, other family members, university teachers, friends and career advisers.

Creating enterprising persons, with entrepreneurial ideas together with the support of the media and individuals although necessary may not provide sufficient conditions for individuals to become self employed in their own business. The research underlines that there are perceived major barriers to starting a business which may influence an individual's perception of feasibility of starting a business. This implies that programmes to encourage business start-ups would also require major support in terms of finance, training for the skills necessary to start a business, management skills, and product or technical skills.

5.0 IMPLICATIONS OF THE STUDY RELATING TO THE LEARNING MODEL FOR DEVELOPING ENTERPRISING BEHAVIOUR

The major implications of the study relating to the model are set out below:

The literature on learning suggests that an understanding of an individual's learning style preference is important in order to tailor programmes to the individual's learning needs and improve and broaden an individual's learning. The findings also suggest that enterprising small business owner-managers and enterprising students display the two key dominant learning styles of activist and pragmatist. It can be argued (although it needs to be tested) that developing preferences for learning styles of an activist and pragmatist nature may subsequently influence an individual's enterprising behaviour. Since the learning literature suggests that learning style may be developed via appropriate learning activities, enterprising behaviour could thus be stimulated through learning activities.

If the expectations of new students are a good proxy for assessing the overall expectations of students, then higher education is not able to meet students' expectations in respect of the learning modes being practised. Despite the overall preference of students for "*student centred*" learning modes, teachers seem to be practising more "*teacher centred*" approaches. What is more, the findings lend support to the view that if enterprising behaviour is an intended learning outcome emphasis should be placed upon "*learning by doing*" rather than learning in the classroom. A rigid structure of learning sessions for the development of enterprising behaviour is less likely to be preferred by enterprising students.

While enterprising students and small business owner-managers share preferences for activist and pragmatist learning styles, the findings also suggest that enterprising

students have a strong preference for theorist learning styles. One possible explanation for this finding is that higher education itself emphasises learning via theories, concepts and models. This is further indicated by another finding in the study which shows teachers' preferences for the teaching of theories and concepts with little attention being paid to "*learning by doing*".

The small business owner-managers' low preference for theorist and reflector and strong preference for activist and pragmatist styles suggests that if training programmes for small business owner-managers are to be effective, the programmes must embrace learning activities that place emphasis upon the practicality of the learning content and use "*learning by doing*" modes. It also means that the teaching modes normally acceptable to enterprising students would not fully meet the small business owner-managers preferred learning modes unless less emphasis was to be given to the learning of theories and concepts.

Teachers teach according to their preferred learning approach. The findings that enterprising teachers have distinctive preferences for certain methods of teaching reveals a potential for using preferred learning methods as an indicator of teachers' enterprising behaviour. The findings suggest the view that enterprising teachers also have a strong preference for activist and pragmatist learning style and teaching according to their preferred learning style.

The learning style literature suggests that an individual can develop his/her preference for a certain learning style via practice and help from teachers. In this case, developing students' preference for activist and pragmatist learning will perhaps assist in the development of certain behaviours associated with enterprising individuals. The possibility of using the learning process in developing enterprising individuals is therefore raised.

6.0 RECOMMENDATIONS FOR ACTION TO DEVELOP ENTERPRISING AND ENTREPRENEURIAL GRADUATES

The following recommendations can be drawn from the above argument.

6.1 DEVELOPING ENTERPRISING BEHAVIOUR

If the aim is to develop enterprising behaviour among students, then the following programmes and methods are recommended.

The development of programmes run by enterprising teachers who use the enterprising modes of learning and teaching within an enterprising learning environment, whereby:

-students and teachers are given the opportunities to be enterprising and rewarded for being so.

-the institutional structure is not bureaucratic.

-a "student centred" approach is adopted in which students have greater responsibilities and ownership for their own learning.

The development of resource materials which are to be used by teachers, trainers and students in developing students' enterprising behaviour at primary, secondary, further education and higher education levels.

The training of teachers and trainers in methods of developing enterprising individuals.

The introduction of work experience programmes for secondary school students, higher education students and graduates, and youths in small and large business organisations. Individuals, teachers and trainers should be given the experience of working alongside small business owner-managers. To make such work programmes possible and to

encourage the private sector participation, the development of Education and Industry Partnerships is recommended

The greater participation of small business owner-managers and enterprising individuals in teaching and learning programmes. This might be brought about by the creation of networks and forums for business contacts between successful entrepreneurs, potential entrepreneurs and educational institutions.

6.2 SUPPORTING THE RELATIONSHIP BETWEEN ENTERPRISING BEHAVIOUR AND ENTREPRENEURSHIP

There should be a systematic development of programmes aimed at generating business ideas and supporting those who have a business idea with the major aim of encouraging business initiation among secondary and further education (including vocational schools and institutes; and higher education) students and graduates.

6.3 INFLUENCING CAREER DECISIONS

The role of the mass media in influencing students' careers needs to be fully tapped.

There should be a systematic development of programmes designed to build networks of career advisers, teachers and parent-teachers associations aimed at enhancing their understanding of the role of small business and its particular needs.

Programmes of awareness open to all students need to be developed. These should provide awareness and understanding of small business and of the role and contribution of entrepreneurs to socio-economic development.

6.4 SUPPORTING THE FEASIBILITY STAGE

Stronger linkages should be built between schools, higher education and small and large businesses via the building of local support network agencies (MARA, Ministry of Commerce and Industry, Banks, Ministry of Youth and Culture, SIRIM, MARDI, FRIM and others).

There should be a systematic development of programmes and methods to assist those (students, youths or other course participants) who have a business idea in acquiring the appropriate financial, physical resources and training support. The training programmes should embrace management skills, technical skills and the skills of how to start a business .

Measures should be taken to provide more venture capital to small businesses (in the light of the fact that capital was seen as the major barrier to starting a business).

Federal and state governments, public companies and state economic development corporations should increase contract and subcontract awards to start-ups via assistance as suppliers, customers, trainers and sources of capital for start-ups.

A master plan of policies and programmes at all levels of education should be designed and adopted in order to foster the development of enterprising behaviour and the shaping of students' and youths' long term careers towards self employment.

7.0 LIMITATIONS OF THE RESEARCH

It is recognised that the research has some methodological limitations related to design, measurement and samples.

The research design is exploratory and non-experimental. The variables in the two models were not controlled or manipulated to determine the causation of the relationships. It is important to note two crucial points in interpreting the findings in this research. Firstly, the relationship between the variables in the model does not necessarily mean causation. Secondly, the relationship between two variables which show the possible influences may run both ways. Another limitation related to the design of this research was that it was not a longitudinal study of the cohort analysis type which would be appropriate for the study of the development of enterprising behaviour and a career towards entrepreneurship over the course of time. Due to certain constraints, (Chapter 6) the longitudinal study was not possible.

The second major limitation is that of measurement and the instruments used. Firstly, the use of the GET Test score as a proxy of enterprising behaviour particularly since the GET Test has not been widely tested for its validity and reliability across cultures. Secondly, the use of LSQ to measure the preferred

learning styles. Although the LSQ has been tested for its reliability and face validity, it has not been widely scientifically tested for its validity. Thirdly, it is also recognised that perceptions are not the best measurement. For example, the perceptions of graduating students and teachers on the "*enterprising tendency*" of their school and department; the perceptions of graduating students and teachers on the modes of learning practised; and the perceptions of new students as a measure of students' expectations and preferences.

The third major limitation concerns with the samples. The random samples of students and teachers were not selected from the six business schools in the country. Instead, the samples were biased towards the business schools with small business/entrepreneurship development centres. In addition, the sample of fourteen small business owner-managers who were undergoing training, was rather small. Moreover, the samples were not drawn from all of the university population.

8.0 FURTHER RESEARCH

Further research can be carried out to improve and refine the models. This could be done by including other variables not tested in the present study. In view of the rather exploratory nature of the present study, there is a need to undertake an explanatory (possibly cohort) study to test more fully the two models.

There needs to be more research into the influences upon learning via work experience in small business and large business in different market sectors.

Furthermore, research is needed to improve the methods of measuring enterprising behaviour and assessing the "*enterprising tendency*" in higher education. In particular, the General Enterprising Tendency (GET) Test has its limitations in measuring

enterprising behaviour particularly in terms of its cross-cultural validity and reliability. The instrument can be further improved through future research.

The study can be replicated on other populations, namely: secondary school students; youths; unemployed and employed graduates.

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APPENDIX 1: LETTER FROM PROF. SEXTON REGARDING TEST INSTRUMENT



William H. Davis Chair
of American Free
Enterprise System

Hagerty Hall
1775 College Road
Columbus, OH 43210-1399
Phone 614-292-3707
FAX 614-292-1651

January 25, 1990

Mr. Salleh Hydin
Durham University Business School
Mill Hill Lane
Durham DH1-3LB
England

Dear Professor Hydin:

Forgive the delay in responding to your request for information on the Modified JPI/PRF-E test instrument.

A copy of the paper you request is attached.

The JPI/PRF-E test instrument is the property of
Research Psychologists Press, Inc.
P.O. Box 984
Port Huron, MI 48060

You may purchase the tests from them.

I would like to point out that the test seems to have cultural bias. We have used it to test Malaysian, Brazilian, and French businessmen. The results are mixed and unexplainable.

Regards,

A handwritten signature in black ink, appearing to read "Donald L. Sexton".

Donald L. Sexton
/cas

Enc.

APPENDIX 2a: MAIN STUDENTS QUESTIONNAIRE

MAIN STUDENT QUESTIONNAIRE

This questionnaire is part of my doctoral research investigating enterprise learning style and career aspirations towards entrepreneurship and small businesses in Malaysia. I am asking the same questions of a sample of 500 students of higher education in Malaysia. The questionnaire has been designed for ease of completion and many of the questions require only the ticking or circling of appropriate answers.

The completed questionnaire is confidential. When the answers are coded for analysis in the computer, no names or addresses will be included, and the reports of this research will be written so that no individual can be identified.

I am very grateful for your help in this research.

Salleh Hj. Din
Doctoral Research Student
Durham University Business School
Mill Hill Lane
Durham DH1 3LB
ENGLAND
Tel. No. 091-3743389

Your Educational Institution _____ (UUM/UPM/ITM)

A. YOUR PERSONAL BACKGROUND

1. Age (as of 1st June, 1990): _____

2. Sex MALE _____ FEMALE _____

3. Race: CHINESE _____ INDIAN _____
MALAY _____ OTHER _____ Please specify: _____

4. Religion: BUDHISM _____ CHRISTIANITY _____

HINDUISM _____ ISLAM _____

OTHER _____ Please specify: _____

5. Marital status: SINGLE _____ MARRIED _____
DIVORCED _____

If married/divorced, how many children do you have? _____

6. Which of these categories come closest to the type of place you were living in since you were 12 years old? Please tick the relevant category and specify the name of the state in which it lies.

VILLAGE	STATE: _____
CITY/STATE CAPITAL	STATE: _____
OTHER TOWN	STATE: _____
(Please specify _____)	

B. YOUR PREVIOUS EDUCATION

1. Your stream or major during secondary school:

ARTS _____
SCIENCE _____
TECHNICAL _____
OTHERS _____ Please specify. _____

2. a) Were you from a matriculation centre?

YES _____
NO _____

b) If YES, please name the CENTRE and MAJOR (arts, science, technical etc.)

CENTRE _____
MAJOR _____

3. a) Have you previously ever studied at any higher institution?

YES _____
NO _____

b) If YES, please specify the INSTITUTION and AREA OF STUDY

INSTITUTION _____
AREA OF STUDIES _____

4. Before joining this Institution, have you ever taken any courses/subjects in small business and/or entrepreneurship previously?

YES _____
NO _____

C. PRESENT EDUCATION

1. Your present course of study will lead to a:

DEGREE _____
ADVANCE DIPLOMA _____
DIPLOMA _____
OTHERS _____ Please specify _____

2. What is your present major of studies?

Accounting _____
Agri Business _____

Business _____
 Economics _____
 Public Administration _____
 Others _____ Please specify _____

3. Your year in college/university
 (Please tick the relevant category)

FIRST _____
 SECOND _____
 THIRD _____
 FOURTH _____

4. If you have been at this institution for at least a SEMESTER, please tick the small business and/or entrepreneurship related subject/s that you have taken:

a. SMALL BUSINESS for at least a semester _____

b. ENTREPRENEURSHIP for at least a semester _____

c. CO-CURRICULUM subject related to
 ENTREPRENEURSHIP OR SMALL BUSINESS
 (Please state the name of the subject) _____

d. SHORT COURSES IN SMALL BUSINESS or/and
 ENTREPRENEURSHIP for less than a semester
 (Please state the name of the course/s
 and their total duration, in DAYS) _____

Name of the course/s _____
 Total Duration in days _____

D. YOUR WORKING EXPERIENCE

1. How many jobs of any kind (except casual) have you had since your completion of your secondary education?

0
 1
 2
 3
 4
 5 or more

2. If you had a job/s after your secondary education, what type of organisations have you worked for? Please tick the relevant category/ies and specify the total number of years working in the related organisation:

	Category/ies	Duration (in year/s)
Public sector organisation	<input type="checkbox"/>	_____
Large business/multinational (with 100 or more employees)	<input type="checkbox"/>	_____
Voluntary organisation/charit.	<input type="checkbox"/>	_____
Large private professional practice (with 20 or more employees)	<input type="checkbox"/>	_____
Small private professional practice (less than 20 employees)	<input type="checkbox"/>	_____
Small business (less than 100 employees)	<input type="checkbox"/>	_____
Other (specify) _____	<input type="checkbox"/>	_____

3. Have you ever had the following experience/s? Please tick the relevant category/ies:

Experience in selling.	<input type="checkbox"/>
In charge of other people at work.	<input type="checkbox"/>
Keeping business accounts or parts of the accounts.	<input type="checkbox"/>
Running an organisation of any kind.	<input type="checkbox"/>
Involved in trading goods and services for your own business.	<input type="checkbox"/>
Involved in trading goods and services for someone else.	<input type="checkbox"/>
Working alongside an independent small business owner-manager.	<input type="checkbox"/>
Working alongside a small private professional practitioner.	<input type="checkbox"/>

E. FAMILY, RELATIVES AND FRIENDS

1. Please tick to indicate the level of education of your spouse, mother, father or your guardian.

	Spouse	Father	Mother	Guardian
No formal education				
Primary education				
Secondary education				
College or university education				

2. Please tick to indicate your spouse, parents/guardian main (or last) occupation:

	Spouse	Father	Mother	Guardian	
Professional - self employed					1
Professional - employee					2
Managerial & administrative positions					3
Clerical					4
Skilled worker					5
Unskilled worker					6
Teacher					7
Nurse					8
Police or army					9
Self employed small business owner manager					10
Housewife					11
Other, please specify _____					12

3. Please tick in the appropriate boxes to indicate the type of organisation of your spouse and parents/guardian main occupation

	Spouse	Mother	Father	Guardian	
Public sector organisation					1
Large business/multinational (with 100 or more employees)					2
Voluntary organisation/charity					3
Large private professional practice (with 20 or more employees)					4
Small private professional practice (less than 20 employees)					5
Small business (less than 100 employees)					6
Other (specify) _____					7

4. Please tick the appropriate boxes.

	YES	NO
Have either of your grandparents ever owned or run their own business/private professional practice.	<input type="checkbox"/>	<input type="checkbox"/>
Have either of your parents ever owned or run their own business/private professional practice -full time.	<input type="checkbox"/>	<input type="checkbox"/>
Have either of your parents ever owned or run their own business/private professional practice -part time.	<input type="checkbox"/>	<input type="checkbox"/>
Has your spouse ever owned or run his/her own business/private professional practice -part time.	<input type="checkbox"/>	<input type="checkbox"/>
Has your spouse ever owned or run his/her business/private professional practice full time.	<input type="checkbox"/>	<input type="checkbox"/>
Have any of your other close relatives owned or run their own business/private professional practice.	<input type="checkbox"/>	<input type="checkbox"/>
Have any of your personal friends owned or run their own business/private professional practice.	<input type="checkbox"/>	<input type="checkbox"/>
Other than your relatives or friends, have you any of your acquaintances or contacts owned or run their own business/private professional practice.	<input type="checkbox"/>	<input type="checkbox"/>
Have you yourself ever owned or run a business/private professional practice.	<input type="checkbox"/>	<input type="checkbox"/>

5. Please tick the relevant category of total COMBINED MONTHLY INCOME of your parents/guardian.

Under \$500	<input type="checkbox"/>
\$500-\$999	<input type="checkbox"/>
\$1000-\$1999	<input type="checkbox"/>
\$2000-\$2999	<input type="checkbox"/>
\$3000-\$3999	<input type="checkbox"/>
\$4000-\$4999	<input type="checkbox"/>
\$5000 and above	<input type="checkbox"/>

F. CAREER

[a) At what stage(s) did you decide on your career? Please tick the relevant category/ies:

I arrive at this Institution with no clear idea about my future career _____

I had already chosen a future career when I arrived at this Institution _____

It was at this Institution that I settled on my future career _____

I changed my mind about my future career during my study at this Institution _____

I have not settle on my future career yet _____

b) If you have settled on your future career, please specify.

2. Can you please indicate how much INFLUENCE you think the following have had on your idea about a career (Tick each as appropriate).

- Very Great Deal of Influence 1
- Great Deal of Influence 2
- Some Influence 3
- Little Influence 4
- No Influence 5

- Parents/guardian _____
- Close family _____
- Friends _____
- The media _____
- Primary school Teacher _____
- Secondary school Teacher _____
- University or college lecturers _____
- University or college career guidance officer _____
- Other, please specify _____

3.a) Have you formed a firm view of the type of organisation you ideally would like to work in IMMEDIATELY on completion of your studies at this institution?

- YES _____
- NO _____

b) If YES, is it: (please tick one only)

- Public sector? _____
- Large business/multinational? _____
- (with 100 or more employees)? _____
- Large private professional practice? _____
- (with 20 or more employees) _____
- Self employed as owner of a private professional practice. _____
- Self employed as business owner. _____
- Other, please specify _____

4.a) Have you formed a firm view of the type of organisation that ideally you would like to work in 5 YEARS FROM TODAY.

- YES _____
- NO _____

b) If YES, is it

- ___ Working in a large private sector organisation?
- ___ Working in a public sector organisation?
- ___ Working in a small business but not necessarily as owner?
- ___ Working in a small private practice but not necessarily as owner?
- ___ Self employment in own small private practice?
- ___ Self employment and running your own business?

5. What would be the THREE MAIN BARRIERS for setting up your own business or private practice (Tick the MOST IMPORTANT THREE).

- Lack of finance
- Lack of a business idea
- Lack of interest/commitment
- Lack of advice
- Lack of market information
- Parental/family opposition
- Lack of technical or product knowledge
- Lack of business management skills
- Lack of knowledge how to start a business
- Others (please specify) _____

6.a) Have you ever had a business idea and wished to start up in business/private practice yourself?

YES

NO

b) Do you plan to start your own private professional practice?

YES

NO

c) If YES (for question 6a/6b), from where did this idea originate? Please tick the relevant category/ies.

- Work experience
- Education and training
- Family and close relative
- Friend
- Other (please specify) _____

d) How far have you pursued the idea? Please tick each action which you have carried out:

- Did not pursue
- Preliminary enquiry (eg friends, colleagues)
- Market research
- Business advisors
- Product design stage
- Finance
- Premises/prototype/patent
- Already in operation

e) What decided you not to pursue your business idea?
(Please specify the main reason). _____

7a) If you do not have any business idea at the moment, do you intend at some time in the future to run your own business? YES NO

b) If NO, how likely would you be to consider self employment, that is running a business/ private practice of your own, in the event that you become unemployed due to redundancy; lay off; or because of present job dissatisfaction?

- VERY LIKELY _____
- LIKELY _____
- UNLIKELY _____

8. The following list are of factors which are considered to be influential in choice of occupation or employer. For each of the factors marked a-j, indicate by a tick IN THE APPROPRIATE box to indicate where it can be more likely to be achieved. FOR EACH OF THE FACTORS, PLEASE TICK IN ONE BOX ONLY.

MORE LIKELY TO BE ACHIEVED

	A	B	C	D	E
	Self-employed in small business	Self-employed in small private practice	Working large private organisation	Working public sector organisation	Any organisation
FACTORS					
a) Opportunity to take responsibility					
b) Opportunity to be creative and original					
c) A high starting salary					
d) Job security					
e) Opportunities for long term progression					
f) Social standing and prestige					
g) Opportunity to travel					
h) Intellectual challenges					
i) Freedom from supervision					
j) A sense of service to the community					

5. What would be the **THREE MAIN BARRIERS** for setting up your own business or private practice (Tick the **MOST IMPORTANT THREE**).

- Lack of finance
- Lack of a business idea
- Lack of interest/commitment
- Lack of advice
- Lack of market information
- Parental/family opposition
- Lack of technical or product knowledge
- Lack of business management skills
- Lack of knowledge how to start a business
- Others (please specify) _____

6.a) Have you ever had a business idea and wished to start up in business/private practice yourself?

YES

NO

b) Do you plan to start your own private professional practice?

c) If YES (for question 6a/6b), from where did this idea originate? Please tick the relevant category/ies.

- Work experience
- Education and training
- Family and close relative
- Friend
- Other (please specify) _____

G. ASSESSMENT OF LEARNING

1. (QUESTION FOR NEW STUDENTS ONLY) For each of the competencies/attributes marked a-j below, please tick the appropriate box to indicate the extent to which you would expect to acquire them at this Institution.

COMPETENCIES	Very Great Extent					Not At All
	5	4	3	2	1	
a) Creativity						
b) Persuasiveness						
c) Leadership						
d) Independence						
e) Analytical ability						
f) Imagination						
g) Ability to deal with ambiguity						
h) Achievement oriented						
i) Persistence						
j) Self confidence						

2. (QUESTION FOR NEW STUDENTS ONLY)

For each of the following elements of education marked a-f below, please tick the appropriate box to indicate the extent to which you expect them to be practised at this Institution.

ELEMENT OF EDUCATION							
A) LEARNING OBJECTIVES	a. Determined by lecturer	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	Negotiated with students
B) CURRICULUM EMPHASIS	a. Emphasis on theory and knowledge.	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	Emphasis on practice, "hands on experience" and process
C) ROLE OF LECTURER	a. Expert who hands down knowledge	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	Facilitator who also learns
D) ROLE OF STUDENTS	a. Learner receiving knowledge	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	Students generating knowledge
E) TEACHING METHODS	a. Chosen by lecturers	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	Negotiated with students
	b. Learning in classroom	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	Learning by doing
	c. Sessions are structured and inflexible	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	Sessions are unstructured and flexible
F) EVALUATION	a. Success is measured by examination						Success is measured by self-development

G. ASSESSMENT OF LEARNING

3.(QUESTIONS FOR SENIOR STUDENTS ONLY)

For each of the competencies/attributes marked a-j below, please tick the appropriate box to indicate the extent to which, you think, you have acquired during your studies at this Institution.

COMPETENCIES	Very Great Extent					Not At All
	5	4	3	2	1	
a) Creativity						
b) Persuasiveness						
c) Leadership						
d) Independence						
e) Analytical ability						
f) Imagination						
g) Ability to deal with ambiguity						
h) Achievement oriented						
i) Persistence						
j) Self confidence						

4. (QUESTION FOR SENIOR STUDENTS ONLY)

For each of the following elements of education marked a-f below, please tick the appropriate box to indicate the extent to which are being generally practised at this Institution.

ELEMENT OF EDUCATION		1	2	3	4	5	
A) LEARNING OBJECTIVES	a. Determined by lecturer						Negotiated with students
B) CURRICULUM EMPHASIS	a. Emphasis on theory and knowledge.						Emphasis on practice, 'hands on experience' and process
C) ROLE OF LECTURER	a. Expert who hands down knowledge						Facilitator who also learns
D) ROLE OF STUDENTS	a. Learner receiving knowledge						Students generating knowledge
E) TEACHING METHODS	a. Chosen by lecturers						Negotiated with students
	b. Learning in classroom						Learning by doing
	c. Sessions are structured and inflexible						Sessions are unstructured and flexible
F) EVALUATION	a. Success is measured by examination grades						Success is measured by self-development

H. PERCEPTION OF ENTREPRENEURS

Below is a series of statements related to entrepreneurs. Please indicate the extent to which you strongly agree or disagree with each statement by giving a tick in the appropriate box. There is no right or wrong answer.

	Strongly Agree					Strongly Disagree				
With a bit of training, anyone can be an entrepreneur.	5	4	3	2	1	5	4	3	2	1
Entrepreneurs are born, not made.	5	4	3	2	1	5	4	3	2	1
Entrepreneurs expects employees to work harder than large established companies or government organisations.	5	4	3	2	1	5	4	3	2	1
Entrepreneurs couldn't fit into a normal, salaried job	5	4	3	2	1	5	4	3	2	1
Entrepreneurs really enjoy their work.	5	4	3	2	1	5	4	3	2	1
Entrepreneurs deserves every cent they get	5	4	3	2	1	5	4	3	2	1
Entrepreneurs are in charge of their own lives.	5	4	3	2	1	5	4	3	2	1
Entrepreneurs earn a lot of money.	5	4	3	2	1	5	4	3	2	1
Entrepreneurs are just irresponsible gamblers.	5	4	3	2	1	5	4	3	2	1

I. Lastly, I am interested in how you would rate your college/university and your department/school on their enterprising competencies. Stated quite simply, an enterprising organisation is one which has shown a marked use of a combination of enterprise attributes such as creativity, leadership, independence, achievement oriented, persistence, and an ability to cope with uncertainty.

Using the above definition of enterprising, please indicate the extent to which you strongly agree or disagree with the following statements:

	STRONGLY AGREE							STRONGLY DISAGREE						
a) This college/university is enterprising.	7	6	5	4	3	2	1	7	6	5	4	3	2	1
b) This department/school is enterprising.	7	6	5	4	3	2	1	7	6	5	4	3	2	1
c) This college/university provides me the opportunity to be enterprising.	7	6	5	4	3	2	1	7	6	5	4	3	2	1

I would like to thank you again for taking the time to assist me in my work.

SOAL SELIDIK I

SOAL SELIDIK UTAMA PELAJAR

Soal selidik ini ialah sebahagian dari penyelidikan kedoktoran saya mengenai teknik pembelajaran serta aspirasi kerjaya ke arah keusahawanan dan perniagaan kecil di Malaysia. Saya akan menggunakan soal selidik yang sama untuk menemuduga seramai lebih kurang 500 orang pelajar institusi pengajian tinggi di Malaysia.

Soal selidik yang lengkap diisi diangap rahsia. Apabila jawapan-jawapan ini dikodkan untuk analisis dalam komputer, tiada sebarang nama atau alamat direkodkan supaya identiti respondenya tidak dapat dikesan.

Saya amat berterima kasih diatas kerjasama saudara/i didalam menyayakkan penyelidikan ini.

Salleh Hj. Din
 Pelajar Penyelidikan Kedoktoran
 Durham University Business School
 Mill Hill Lane
 Durham DH1 3LB
 ENGLAND
 Tel. No. 091-3743389

Nombor Siri (seperti nombor siri soal selidik 2) _____
 Pusat Pengajian Tinggi _____ (UUM/UPM/ITM S. Alam/ITM Per.)

A. BUTIR DIRI

1. Umur (pada lhb. Jun, 1990): _____ TABUN
2. Jantina: LELAKI PEREMPUAN
3. Keturunan: CINA INDIA MELAYU
 LAIN-LAIN Sila nyatakan: _____
4. Agama: BUDDHA KRISTIAN HINDU
 ISLAM LAIN-LAIN Sila nyatakan _____
5. Taraf Perkahwinan: BUJANG BERKAHWIN
 Jika berkahwin, nyatakan bilangan anak _____

6. Sejak anda berumur 12 tahun, adakah anda tinggal di kampung, bandaraya/ibu negeri atau lain-lain pekan atau bandar? Sila tandakan (/) dalam satu kotak yang berkenaan serta nyatakan negeri dimana kampung, bandaraya/ibu negeri atau lain-lain pekan/bandar itu terletak.

NEGERI

KAMPUNG _____

BANDARAYA/IBU NEGERI _____

LAIN-LAIN BANDAR/PEKAN _____

(Sila nyatakan _____)

B. BUTIR PENDIDIKAN ANDA DABULU

1. Aliran atau jurusan semasa di sekolah menengah:
 SASTERA SAINS TEKNIKAL
 LAIN-LAIN Sila nyatakan _____
2. a) Adakah anda dari mana-mana pusat matrikulasi?
 YA TIDAK
- b) Jika YA, sila nyatakan nama PUSAT serta JURUSAN (seatera, sains, teknikal deb.)
 PUSAT _____ JURUSAN _____
3. a) Pernahkah anda belajar di mana-mana pusat pengajian tinggi sebelum ini?
 YA TIDAK
- b) Jika YA, sila nyatakan PUSAT PENGAJIAN TINGGI itu serta BIDANG PENGAJIAN
 PUSAT PENGAJIAN _____ BIDANG PENGAJIAN _____
4. Sebelum memasuki pusat pengajian ini, pernahkah anda mengambil kursus/matapelajaran perniagaan kecil dan/atau keusahawanan?
 YA TIDAK

1/3 1/4 1/5 1/6 1/7 1/8 1/9 1/10 1/11 1/12 1/13 1/14 1/15 1/16 1/17 1/18 1/19 1/20 1/21 1/22 1/23

C. PENDIDIKAN ANDA SEKARANG

1. Kursus/pengajian anda sekarang anda sebarang akan membolehkan anda memperoleh

IJAZAH	1	2	3	4	5
DIPLOMA LANJUTAN					
DIPLOMA					
LAIN-LAIN					

Sila nyatakan _____

2. Apakah bidang pengajian anda sekarang?

Perakaunan	1	2	3	4	5	6
Perniagaan Tani						
Perniagaan						
Ekonomi						
Pentadbiran Awam						
Lain-lain						

Sila nyatakan _____

3. Sekarang anda dalam tahun (Sila tandakan / yang berkenaan)

Pertama	1	2	3	4
Kedua				
Ketiga				
Keempat				

4. Sekiranya anda telah berada di pusat pengajian ini selama sekurang-kurangnya SATU SEMESTER, sila tandakan kursus/matapelajaran perniagaan kecil dan/atau keusahawanan atau matapelajaran berkaitan yang anda telah pelajari.

a. PERNIAGAAN KECIL sekurang-kurangnya satu semester			
b. KEUSABAHANAN sekurang-kurangnya satu semester			
c. KO-KURIKULUM yang berkaitan dengan keusahawanan atau perniagaan kecil (Sila nyatakan nama matapelajaran berkenaan)			

d. Kursus-kursus jangka pendek di dalam bidang PERIAGAAN KECIL dan/atau KEUSABAHANAN untuk tempoh kurang dari satu semester (Sila nyatakan nama matapelajaran/kursus dan jumlah barinya)

Nama-nama kursus _____
 Jumlah baris _____

D. PENGALAMAN BEKERJA ANDA

1. Berpekaah jawatan/jenis pekerjaan (kecuali kerja sambilan) yang telah anda lakukan sejak tamat pengajian sekolah menengah?

0						
1						
2						
3						
4						

5 atau lebih

2. Sekiranya anda pernah bekerja selepas tamat pendidikan sekolah menengah, apakah jenis organisasi tempat anda bekerja itu serta berapa lamakah anda bekerja bagi setiap organisasi yang berkenaan? Sila tandakan kategori/kategori-kategori yang berkenaan serta jumlah tahun bekerja di organisasi berkenaan.

JENIS-JENIS ORGANISASI

JUMLAH TAHUN BEKERJA

Sektor swam						
Perniagaan antarabangsa/besar-besaran (mempunyai 100 atau lebih pekerja)						
Organisasi sukarela/pertubuhan kebajikan						
Firma profesional yang besar (mempunyai 20 atau lebih pekerja)						
Firma profesional yang kecil (mempunyai kurang dari 20 orang pekerja)						
Perniagaan kecil (mempunyai kurang dari 100 orang pekerja)						
Lain-lain (nyatakan _____)						

Jumlah pengajian

32	33
34	35
36	37
38	39
40	41
42	43
44	45

3. Adakah anda mempunyai pengalaman-pengalaman berikut? Sila tandakan kategori/kategori-kategori yang berkenaan berikut:

--	--	--	--	--	--	--	--	--	--

- a. Pengalaman menjual.
- b. Mengawasi staf-staf lain semasa bekerja.
- c. Menjaga semua akaun perniagaan atau sebahagian darinya.
- d. Mengendali sesuatu jenis organisasi.
- e. Mengendalikan perdagangan barangan/perkhidmatan untuk perniagaan anda sendiri.
- f. Mengendalikan perdagangan barangan/perkhidmatan untuk perniagaan orang lain.
- g. Bekerja di samping seorang pemilik-pengurus perniagaan kecil.
- h. Bekerja di samping seorang pemilik firma profesional kecil-kecilan.

P. KELUARCA, SAUDARA MARA DAN RAKAN-RAKAN

1. Sila tandakan (//) untuk menunjukkan tahap pendidikan tertinggi isteri/suami, ibu, bapa atau penjaga anda.

Isteri/suami Ibu Bapa Penjaga

Tiada pendidikan formal												
Sekolah rendah												
Sekolah menengah												
Universiti/pusat pengajian tinggi												

2. Sila tandakan (//) untuk menunjukkan pekerjaan utama isteri/suami, ibu, bapa/penjaga anda.

Isteri/
suami Ibu Bapa Penjaga

1. Profesional - bekerja sendiri								
2. Profesional - pekerja gajian (makan gaji)								
3. Pegawai pengurus atau pentadbiran								
4. Perkeranian								
5. Pekerja mahir								
6. Pekerja tidak mahir								
7. Guru								
8. Jururawat								
9. Polis atau tentera								
10. Perniagaan sendiri								
11. Suri rumah								
12. Lain-lain, (sila nyatakan _____)								

3. Sila tandakan (//) di dalam kotak berkenaan untuk menunjukkan jenis organisasi tempat isteri/suami, ibu, bapa atau penjaga anda bekerja.

JENIS ORGANISASI TEMPAT BEKERJA

1. a. Sektor awam								
2. b. Perniagaan antarabangsa/besar-besaran (mempunyai 100 atau lebih pekerja)								
3. c. Organisasi sukarela/pertubuhan kebajikan								
4. d. Firma profesional yang besar (mempunyai 20 atau lebih pekerja)								
5. e. Firma profesional yang kecil (mempunyai kurang dari 20 orang pekerja)								
6. f. Perniagaan kecil (mempunyai kurang dari 100 orang pekerja)								
7. g. Lain-lain, nyatakan _____								

4. Sila tandakan (✓) di dalam kotak/kotak-kotak berkenaan

YA																			
TIDAK																			

- a. Adakah datuk/nenek anda pernah memiliki atau mengendalikan perniagaan sendiri/firma profesional sendiri
- b. Adakah ibu/bapa anda pernah memiliki atau mengendalikan perniagaan sendiri/firma profesional sendiri secara separuh masa.
- c. Adakah ibu/bapa anda pernah memiliki atau mengendalikan perniagaan sendiri/firma profesional sendiri secara sepenuh masa.
- d. Adakah isteri/suami anda pernah memiliki atau mengendalikan perniagaan sendiri/firma profesional sendiri secara separuh masa.
- e. Adakah isteri/suami anda pernah memiliki atau mengendalikan perniagaan sendiri/firma profesional sendiri secara sepenuh masa.
- f. Adakah sesiapa di antara saudara mara terdekat anda lain yang memiliki atau mengendalikan perniagaan sendiri/firma profesional sendiri.
- g. Adakah sesiapa di antara rakan-rakan karib anda memiliki atau mengendalikan perniagaan sendiri/firma profesional sendiri?
- h. Selain dari saudara mara atau rakan-rakan karib anda, adakah sesiapa di antara kenalan anda yang memiliki atau mengendalikan perniagaan sendiri/firma profesional sendiri?
- i. Pernahkah anda memiliki dan mengendalikan perniagaan sendiri/firma profesional sendiri?

5. Sila tandakan (✓) didalam kategori berkenaan, JUMLAH PENDAPATAN BERTAMBAH DUA ibu/bapa atau penjaga anda.

Ke bawah \$500	1					
\$500-\$999	2					
\$1000-\$1999	3					
\$2000-\$2999	4					
\$3000-\$3999	5					
\$4000-\$4999	6					
\$5000 dan ke atas	7					

F. KERJAYA

1.a) Di peringkat/ peringkat-peringkat manakah anda telah membuat keputusan mengenai kerjaya anda? Sila tandakan (✓) yang berkenaan.

80																			
81																			
82																			
83																			
84																			
85																			

Saya masuk ke kolej/universiti ini tanpa sebarang idea yang jelas mengenai kerjaya untuk masa depan saya.

Semasa memasuki kolej/universiti ini, saya telah pun memilih satu kerjaya untuk masa depan saya.

Semasa di kolej/universiti inilah saya tetapkan kerjaya untuk masa depan saya.

Saya bertukar fikiran mengenai kerjaya untuk masa depan saya semasa belajar di kolej/universiti ini.

Saya masih belum menetapkan kerjaya untuk masa depan saya.

b) Jika anda telah membuat pilihan tentang kerjaya untuk masa depan anda, sila nyatakan pekerjaan tersebut.

2. Sila tandakan sejauh manakah pihak berikut telah mempengaruhi pilihan kerjaya anda. Tandakan (✓) bagi tiap-tiap satu mengikut peringkat pengaruhnya.

Ibu bapa/penjaga	1																		
Keluarga	2																		
Rakan-rakan	3																		
Media massa	4																		
Guru sekolah rendah	5																		
Guru sekolah menengah																			
Pensyarah universiti/kolej																			
Pegawai kerjaya universiti/kolej																			
Lain-lain, sila nyatakan																			

Ada

Tersangat kuat pengaruh 1
 Sangat kuat pengaruh 2
 Sedikit sebanyak pengaruh 3
 Sedikit pengaruh 4
 Tiada pengaruh 5

3.e) Sudahkah anda membuat pilihan mengenai organisasi yang anda anggap sesuai atau 'ideal' untuk anda bekerja sebaik-baik sahaja tamat pengajian di kolej/universiti ini?

YA TIDAK

b) Jika YA, adakah ianya di : (Sila tanda satu sahaja)

- Sektor awam?
- Perniagaan antarabangsa/besar-besaran? (mempunyai lebih 100 orang pekerja)
- Firma profesional besar-besaran? (mempunyai lebih 20 orang pekerja)
- Bekerja sendiri sebagai pemilik firma profesional
- Bekerja sendiri sebagai pemilik perniagaan sendiri
- Lain-lain, sila nyatakan

5. Apakah yang menjadi TIGA PENGHALANG UTAMA kepada anda untuk menjalankan perniagaan/firma profesional sendiri.

Tandakan (/) untuk 3 sahaja

- Kekurangan kewangan
- Kekurangan idea perniagaan.....
- Kekurangan minat/komitmen
- Kekurangan bimbingan
- Kekurangan maklumat pasaran
- Tentangan daripada ibu, bapa/keluarga
- Kekurangan pengetahuan teknik atau pengeluaran
- Kekurangan pengetahuan mengurus perniagaan
- Kekurangan pengetahuan menjalankan perniagaan
- Lain-lain (sila nyatakan _____).....

6.a) Adakah anda mempunyai sebarang idea perniagaan dan bercadang untuk memulakan perniagaan kecil sendiri.

YA TIDAK

b) Adakah anda bercadang untuk memulakan firma profesional sendiri?

YA TIDAK

c) Jika YA (bagi soalan 6a./6b.), dari manakah anda mendapat idea ini? Tandakan (/) di dalam kotak/kotak-kotak berkenaan.

- Pengalaman bekerja
- Pendidikan dan latihan
- Pamili dan/atau keluarga terdekat
- Rakan-rakan
- Lain-lain (sila nyatakan _____)

d) Sejauh manakah anda telah bertindak untuk menjadikan idea itu satu kenyataan. Tandakan (/) di dalam kotak/kotak-kotak berkenaan.

- Tidak membuat apa-apa tindakan
- Mendapat maklumat awal dari rakan dsb.
- Penyelidikan pasaran
- Bimbingan dari penasihat perniagaan
- Mereka bentuk barang keluaran
- Pembiayaan dan kewangan
- Tempat perniagaan

e) Apakah yang membuat anda tidak bertindak untuk meneruskan idea itu? Nyatakan sebab utamanya.

7a) Sekiranya pada masa ini anda belum mempunyai sebarang idea perniagaan, adakah anda bercadang untuk menjalankan perniagaan sendiri di masa hadapan?

YA TIDAK

109

109

110

111

112

113

114

115

116

117

118

119

120

121

122

neak kegunaan
ejabat sahaja

d. PERANAN PELAJAR

i) Sebagai penerima ilmu pengetahuan.

1	2	3	4	5
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

 Sebagai orang yang turut menyumbangkan ilmu pengetahuan hasil dari pengalaman dan amalan.

e. KAEDAH MENGAJAR

i) Ditentukan oleh penyarah

1	2	3	4	5
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

 Ditentukan setelah berunding dengan pelajar.

ii) Pembelajaran di dalam bilik kuliah

1	2	3	4	5
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

 Pembelajaran melalui amalan/ pelaksanaan.

iii) Sesi-sesi pembelajaran telah ditentukan.

1	2	3	4	5
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

 Sesi-sesi pembelajaran bersifat terbuka dan fleksibel.

f) PENILAIAN

i) Kejayaan diukur menerusi gred peperiksaan.

1	2	3	4	5
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

 Kejayaan diukur melalui kemajuan diri.

G. TANGGAPAN TERHADAP USABAWAN

Berikut ialah kenyataan mengenai usahawan. Sila tandakan (/) dalam kotak berkenaan untuk menunjukkan sejauh manakah anda berseutu atau tidak berseutu dengan kenyataan itu. Tidak ada jawapan yang betul atau salah.

a. Dengan sedikit latihan siapa sahaja boleh menjadi seorang usahawan.

b. Keusahawanan adalah kebolehan semula jadi dan tidak perlu dilatih.

c. Usahawan mengharapkan pekerja-pekerjanya bekerja lebih kuat daripada pekerja-pekerja di sektor awam dan syarikat yang besar serta terkenal.

	SANGAT BERSETUJU					SANGAT TIDAK BERSETUJU				
	5	4	3	2	1	5	4	3	2	1
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

173 174 175 176 177 178

179 180 181

	SANGAT BERSETUJU					SANGAT TIDAK BERSETUJU				
	5	4	3	2	1	5	4	3	2	1
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- d. Usahawan tidak suka kerja biasa yang bergaji tetap.
- e. Usahawan cukup suka dengan kerja mereka.
- f. Usaha seorang usahawan adalah setimpal dengan pendapatannya.
- g. Usahawan mencorakkan masa depannya sendiri.
- h. Usahawan mendapat keuntungan yang banyak.
- i. Usahawan suka memperjuangkan hidup.

B. Akhir sekali, saya berminat untuk mengetahui bagaimana anda menilai kolej/universiti dan jabatan/sekolah/kajian anda mengenai sejauh mana "enterprise"-nya organisasi tempat anda belajar. Secara ringkasnya, sesebuah organisasi yang "enterprise" ialah organisasi yang telah menunjukkan ketarannya gabungan kebolehan berkreatif, walaupun, berdikari, mengutamakan kejayaan, kegigihan dan keupayaan menghadapi keadaan yang tidak menentu untuk mencapai kejayaan.

1. Dengan menggunakan definisi "enterprising" seperti di atas, sila beri penilaian anda mengenai kenyataan berikut:

	Sangat berseutu					Sangat tidak berseutu				
	7	6	5	4	3	7	6	5	4	3
a. Kolej/universiti ditempatkan saya belajar ini adalah sebuah organisasi yang ber"enterprise".	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Jabatan/sekolah/kajian di tempat saya belajar ini adalah satu bahagian yang ber"enterprise".	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Di kolej/universiti tempat saya belajar ini, pelajarannya diberi peluang untuk ber "enterprise".	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

..... TAMAT

APPENDIX 3a: LEARNING STYLES QUESTIONNAIRE

THE LEARNING STYLES QUESTIONNAIRE

This questionnaire is designed to find out your preferred learning style(s). Over the years you have probably developed learning 'habits' that help you benefit more from some experiences than from others. Since you are probably unaware of this, this questionnaire will help you pinpoint your learning preferences so that you are in a better position to select learning experiences that suit your style.

There is no time limit to this questionnaire. It will probably take you 10-15 minutes. The accuracy of the results depends on how honest you can be. There are no right or wrong answers. If you agree more than you disagree with a statement put a tick by it (✓). If you disagree more than you agree put a cross by it (×). Be sure to mark each item with either a tick or cross.

- 1. I have strong beliefs about what is right and wrong, good and bad.
- 2. I often act without considering the possible consequences.
- 3. I tend to solve problems using a step-by-step approach.
- 4. I believe that formal procedures and policies restrict people.
- 5. I have a reputation for saying what I think, simply and directly.
- 6. I often find that actions based on feelings are as sound as those based on careful thought and analysis.
- 7. I like the sort of work where I have time for thorough preparation and implementation.
- 8. I regularly question people about their basic assumptions.
- 9. What matters most is whether something works in practice.
- 10. I actively seek out new experiences.
- 11. When I hear about a new idea or approach I immediately start working out how to apply it in practice.
- 12. I am keen on self discipline such as watching my diet, taking regular exercise, sticking to a fixed routine, etc.
- 13. I take pride in doing a thorough job.
- 14. I get on best with logical, analytical people and less well with spontaneous, 'irrational' people.
- 15. I take care over the interpretation of data available to me and avoid jumping to conclusions.
- 16. I like to reach a decision carefully after weighing up many alternatives.
- 17. I'm attracted more to novel, unusual ideas than to practical ones.
- 18. I don't like disorganised things and prefer to fit things into a coherent pattern.
- 19. I accept and stick to laid down procedures and policies so long as I regard them as an efficient way of getting the job done.
- 20. I like to relate my actions to a general principle.
- 21. In discussions I like to get straight to the point.
- 22. I tend to have distant, rather formal relationships with people at work
- 23. I thrive on the challenge of tackling something new and different.
- 24. I enjoy fun-loving, spontaneous people.
- 25. I pay meticulous attention to detail before coming to a conclusion.
- 26. I find it difficult to produce ideas on impulse.
- 27. I like to work in a team.

- 28. I am careful not to jump to conclusions too quickly.
- 29. I prefer to have as many sources of information as possible - the more data to think over the better.
- 30. Flippant people who don't take things seriously enough usually irritate me.
- 31. I listen to other people's points of view before putting my own forward.
- 32. I tend to be open about how I'm feeling.
- 33. In discussions I enjoy watching the manoeuvrings of the other participants.
- 34. I prefer to respond to events on a spontaneous, flexible basis rather than plan things out in advance.
- 35. I tend to be attracted to techniques such as network analysis, flow charts, branching programmes, contingency planning, etc.
- 36. It worries me if I have to rush out a piece of work to meet a tight deadline.
- 37. I tend to judge people's ideas on their practical merits.
- 38. Quiet, thoughtful people tend to make me feel uneasy.
- 39. I often get irritated by people who want to rush things.
- 40. It is more important to enjoy the present moment than to think about the past or future.
- 41. I think that decisions based on a thorough analysis of all the information are sounder than those based on intuition.
- 42. I tend to be a perfectionist.
- 43. In discussions I usually produce lots of spontaneous ideas.
- 44. In meetings I put forward practical realistic ideas.
- 45. More often than not, rules are there to be broken.
- 46. I prefer to stand back from a situation and consider all the perspectives.
- 47. I can often see inconsistencies and weaknesses in other people's arguments.
- 48. On balance I talk more than I listen.
- 49. I can often see better, more practical ways to get things done.
- 50. I think written reports should be short and to the point.
- 51. I believe that rational, logical thinking should win the day.
- 52. I tend to discuss specific things with people rather than engaging in social discussion.
- 53. I like people who approach things realistically rather than theoretically.
- 54. In discussions I get impatient with irrelevancies and digressions.
- 55. If I have a report to write I tend to produce lots of drafts before settling on the final version.

- 56. I am keen to try things out to see if they work in practice.
- 57. I am keen to reach answers via a logical approach.
- 58. I enjoy being the one that talks a lot.
- 59. In discussions I often find I am the realist, keeping people to the point and avoiding wild speculations.
- 60. I like to ponder many alternatives before making up my mind.
- 61. In discussions with people I often find I am the most dispassionate and objective.
- 62. In discussions I'm more likely to adopt a 'low profile' than to take the lead and do most of the talking.
- 63. I like to be able to relate current actions to a longer term picture.
- 64. When things go wrong I am happy to shrug it off and 'put it down to experience'.
- 65. I tend to reject wild, spontaneous ideas as being impractical.
- 66. It's best to think carefully before taking action.
- 67. On balance I do the listening rather than the talking.
- 68. I tend to be tough on people who find it difficult to adopt a logical approach.
- 69. Most times I believe the end justifies the means.
- 70. I don't mind hurting people's feelings so long as the job gets done.
- 71. I find the formality of having specific objectives and plans stifling.
- 72. I'm usually one of the people who puts life into a party.
- 73. I do whatever is expedient to get the job done.
- 74. I quickly get bored with methodical, detailed work.
- 75. I am keen on exploring the basic assumptions, principles and theories underpinning things and events.
- 76. I'm always interested to find out what people think.
- 77. I like meetings to be run on methodical lines, sticking to laid down agenda, etc.
- 78. I steer clear of subjective or ambiguous topics.
- 79. I enjoy the drama and excitement of a crisis situation.
- 80. People often find me insensitive to their feelings.

SOAL SELIDIK II

NOMBOR SIRI

Universiti/Institusi: _____

Fakulti/Sekolah/Jabatan: _____

SOAL SELIDIK TEKNIK PEMBELAJARAN

Soal selidik ini bertujuan untuk mengkaji teknik pembelajaran yang lebih anda sukai. Pengalaman belajar yang bertahun-tahun mungkin ialah membentuk kebiasaan belajar yang anda dapati lebih berkesan dengan diri anda. Hal ini mungkin anda tidak sedari. Justeru itu soal selidik ini boleh membantu anda mengenali teknik pembelajaran yang sesuai dengan anda.

Tiada had masa yang ditetapkan untuk menjawab soal selidik ini. Anda mungkin memerlukan antara 10 hingga 15 minit sahaja. Keputusan hasil kajian ini akan bergantung kepada keupayaan anda menjawabnya. Tidak ada jawapan yang betul atau salah. Sekiranya anda lebih berminat dengan sesuatu kenyataan, tandakan (/) jika anda lebih kepada tidak berminat (X). Pastikan anda menanda (/) atau (X) bagi setiap kenyataan.

- 1. Saya mencirikan nilai-nilai yang tertentu terhadap sesuatu yang dianggap baik atau buruk, betul atau salah.
- 2. Saya kerap-jah bertindak tanpa memikirkan akibatnya.
- 3. Saya berkecenderungan menyelesaikan masalah peringkat demi peringkat.
- 4. Saya percaya bahawa peraturan dan dasar yang formal boleh menyekui keupayaan seseorang.
- 5. Saya dukacali sebagai seorang yang sesuaian bertema-derang.
- 6. Kerap kali saya dapat tindakan mengikut peragaan adalah sama baiknya dengan tindakan yang diambil mengikut pertimbangan dan analisis yang teliti.
- 7. Saya suka jenis-jenis kerja dimana saya diberikan masa yang secukupnya untuk membuat persiapan dan pelaksanaan.
- 8. Biasanya saya mempersoalkan tentang andaian asas seseorang.
- 9. Yang paling penting ialah sama ada sesuatu itu dapat di praktikan atau tidak.
- 10. Sebait mungkin saya berusaha mencari pengalaman baru.
- 11. Apabila saya mempunyai tahu tentang sesuatu idea atau pendekatan yang baru, saya segera fikirkan cara-cara hendak mengamalkannya.

Umur kegunaan Pejabat sahaja

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12.

Saya suka menciptakan diri sendiri seperti mengamalkan cara pemakaian yang sesuai, selesa berseman, mengahui jedaial kerja yang tetap, dan Saya berasa bangga melaksanakn sesuatu kerja dengan bertanggung-tanggung.

13.

Saya senang bekerja dengan orang yang berfikir logik dan kritis berbanding mereka yang suka bertindak secara spontan.

14.

Saya berhati-hati apabila menginterpretasikan data-data yang ada dan clakik-in daripada membuat kesimpulan yang tergesa-gesa.

15.

Saya berhati-hati apabila membuat keputusan dengan mengambalkira pelbagai alternatif.

16.

Saya lebih tertarik kepada idea-idea yang original dan unik daripada idea-idea yang biasa dipraktikkan.

17.

Saya tidak gemarkan sesuatu yang tidak teratur sebaliknya saya lebih suka akan keadaan yang teratur dan terurus.

18.

Saya mematuhi segala peraturan dan polisi yang ada sekiranya saya dapat mengigunanya untuk menjalini kerja dengan cekap.

19.

Saya suka berlandaskan tindakan saya kepada prinsip-prinsip umum.

20.

Saya ialah suka perbincangan yang berbebit-bebit.

21.

Kerap kali perbincangan saya dengan rakan sejawat agak formal dan tidak begitu mesra.

22.

Cabaran melaksanakn tugas-tugas yang baru dan berbeza memberi kepuasan sepenuhnya kepada saya.

23.

Saya suka seorang yang periang dan berahaja.

24.

Saya meneliti butir-butir secara terperinci sebelum membuat sesuatu rumusan.

25.

Saya suka mengemukakan idea secara spontan.

26.

Saya suka membuat keputusan dengan segera.

27.

Saya berhati-hati agar tidak membuat kesimpulan secara tergesa-gesa.

28.

Saya suka memperolehi seberspa banyak sumber maklumat - lebih banyak data untuk unila lebih baik.

29.

Saya kurang senang dengan orang yang tidak menjalini tugas dengan bertanggung-tanggung.

30.

Saya memberi perhatian kepada pendapat orang lain dahulu sebelum mengemukakan pendapat saya sendiri.

31.

Saya lebih suka berterus-terang tentang apa yang saya rasakan.

32.

Dalam situasi perbincangan saya lebih suka memceritakan cara perkerja-pekerja lain memberikan dan memperbahakan pendapat mereka.

33.

Saya lebih suka memberi maklumbalas secara spontan dan tidakbal daripada merancang terlebih dahulu.

34.

Saya tertarik hati dengan teknik-teknik analisis rangkaian, cara aliran, rancangan berpilih, perancangan luar jangkaan, dan lain-lain.

35.

Umur kegunaan Pejabat sahaja

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36. Saya rasau jika saya terpacu menyayapkan kerja secara terburu-buru supaya mencapai masa yang ditetapkan.
37. Saya lebih suka mencuba idea-idea berbanding sama ada idea itu boleh dilaksanakan atau tidak.
38. Saya kurang selesa dengan orang yang pendiam dan terlihat lalai dalam sesuatu hal.
39. Saya kurang selesa dengan mereka yang terburu-buru menyelesaikan kerja.
40. Lebih baik menikmati apa yang ada hari daripada memikirkan hal-hal yang telah atau akan berlaku.
41. Saya berpendapat bahawa keputusan yang berdasarkan analisis maklumat yang teliti adalah lebih baik daripada keputusan yang dibuat mengikut gerak hati (intuisi).
42. Saya boleh dianggap sebagai seorang 'perfectionist'.
43. Dalam perbincangan, saya banyak mengeluarkan idea secara spontan.
44. Dalam mesyuarat saya mencadangkan pendapat yang realistik dan praktikal.
45. Sudah menjadi kebiasaan orang melonggar peraturan.
46. Saya lebih gemar memerhati dari jauh dan mempertimbangkan segala perkara sebelum dalam sesuatu situasi.
47. Biasanya saya dapat mengagosa hujah-hujah orang lain yang lemah dan tak kukuh.
48. Jika diarahkan saya lebih banyak bercakap daripada mendengar.
49. Saya sanggup dapat melihat cara-cara yang lebih praktikal bagi melaksanakan sesuatu tugas.
50. Pada pendapat saya laporan bertulis haruslah tepat dan padat.
51. Saya yakin cara berfikir yang logik dan rasional dapat memecahkan kejayaan.
52. Saya lebih gemar mencadangkan perkara-perkara yang khusus daripada bertulis tentang perkara-perkara biasa.
53. Saya sukakan orang yang realistik daripada orang yang membezakan teori dalam melaksanakan sesuatu tugas.
54. Dalam sesuatu perbincangan saya hilang sabar jika orang menampakan perhatian kepada perkara-perkara yang tidak berkaitan.
55. Jika saya dikehendaki menulis sesuatu laporan saya menyediakan banyak draf sebelum memilih yang terbaik.
56. Saya cukup suka mencuba sama ada sesuatu itu boleh dilaksanakan atau tidak.
57. Saya lebih suka mencari jawapan secara pendekatan yang logik.
58. Saya suka bercakap banyak berbanding dengan orang lain.
59. Dalam sesuatu perbincangan, tercapkai saya rasa diri saya realistik dan mengawal supaya perbincangan tidak menyelarang.
60. Saya suka mencari banyak alternatif sebelum membuat keputusan.

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61. Dalam sesuatu perbincangan saya rasa saya cukup objektif dan tidak menyumbat atau memarah-marah pihak.
62. Dalam perbincangan, saya lebih suka tidak melibatkan diri secara aktif dan banyak bercakap.
63. Saya suka mengemukakan tindakan secara dalam ketika jangka panjang.
64. Apabila berhadapan dengan kesulitan, saya lebih suka melupakannya dan menjadikannya suatu pengajaran.
65. Saya berkecenderungan menolak idea-idea yang liar dan spontan.
66. Adalah lebih baik memikirkan secara mendalam sebelum mengemukakan tindakan.
67. Jika dibundungkan, saya lebih banyak mendengar daripada bercakap.
68. Saya bertolak tekad terhadap orang yang sukar menerima pendekatan yang logik.
69. Saya selalu berpusing kepada kepercayaan bahawa sesuatu hasil itu disimpan dengan cara yang luhur.
70. Saya tidak peduli perasaan orang, asalkan kerja berter.
71. Saya tidak mahu terlibat kepada sesuatu objektif dan perancangan yang terlalu formal.
72. Biasanya saya lebih orang yang menghidupkan sesuatu upacara.
73. Saya melupakan apa saja untuk memulakan sesuatu tugas itu sebaik.
74. Saya mudah jemu dengan kerja-kerja yang dilakukan secara detail dan terperinci.
75. Saya suka mencanai cadangan-cadangan prinsip-prinsip dan teori-teori asas yang menjadi teras kepada sesuatu perkara dan kejadian.
76. Saya selalu berminat mengetahui pendapat orang lain.
77. Saya suka sesuatu mesyuarat ini ditendalikan mengikut peraturan, menepati agenda yang ditetapkan, dan sebagainya.
78. Saya mengibaratkan topik-topik yang subjektif dan tidak jelas.
79. Saya tertarik dengan drama yang menggambarkan situasi yang penuh dengan krisis.
80. Saya selalu diturunkan untuk mengemukakan perutusan orang.

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DURHAM UNIVERSITY BUSINESS SCHOOL

GENERAL ENTERPRISING TENDENCY

(GET) TEST

Instructions

This exercise could not be simpler:

- It will only take about ten minutes
- There are no right or wrong answers
- It will help you to gain a better understanding of yourself

In the following pages of this booklet, you will find a list of 54 different statements. You are merely required to agree or disagree with the statements that have been made. For example, one statement might say:

I prefer swimming to running

or

I often take on too many tasks

On the answer sheet provided you should:

- (i) Circle the A in the box which corresponds to the statement number if you agree with the statement, OR
- (ii) Circle the D if you disagree with the statement.

If, for any reason, you neither fully agree nor fully disagree with a particular statement, please try to decide whether you agree with it more or disagree with it more and circle the appropriate answer.

Please be honest when completing the answer sheet. The more accurate your answers are increases the precision of the test.

Now turn over the page to begin the test.

⋮

1. I would not mind routine unchallenging work if the pay was good.
2. When I have to set my own targets, I set difficult rather than easy ones.
3. I do not like to do things that are novel or unconventional.
4. Capable people who fail to become successful have not taken chances when they have occurred.
5. I rarely day dream.
6. I usually defend my point of view if someone disagrees with me.
7. You are either naturally good at something or you are not, effort makes no difference.
8. Sometimes people find my ideas unusual.
9. If I had to gamble £1, I would rather buy a raffle ticket than play cards.

10. I like challenges that really stretch my abilities rather than things I can do easily.
11. I would prefer to have a reasonable income in a job that I was sure of keeping rather than in a job that I might lose if I did not perform well.
12. I like to do things in my own way without worrying about what other people think.
13. Many of the bad times that people experience are due to bad luck.
14. I like to find out about things even if it means handling some problems whilst doing so.
15. If I am having problems with a task I leave it and move onto something else.
16. When I make plans to do something, I nearly always do what I plan.
17. I do not like sudden changes in my life.
18. I will take risks if the chances of success are 50/50.

19. I think more of the present and the past than of the future.
20. If I had a good idea for making some money I would be willing to borrow some money to enable me to do it.
21. When I am in a group I am happy to let someone else take the lead.
22. People generally get what they deserve.
23. I do not like guessing.
24. It is more important to do a job well than to try to please people.
25. I will get what I want from life if I please the people with control over me.
26. Other people think that I ask a lot of questions.
27. If there is a chance of failure I would rather not do it.

28. I get annoyed if people are not on time.
29. Before I make a decision I like to have all the facts no matter how long it takes.
30. When tackling a task I rarely need or want help.
31. Success cannot come unless you are in the right place at the right time.
32. I prefer to be quite good at several things rather than very good at one thing.
33. I would rather work with a person I liked, but who was not very good at the job, than work with someone I did not really like who was very good at the job.
34. Being successful is the result of working hard, luck has nothing to do with it.
35. I prefer doing things in the usual way rather than trying out new ways.
36. Before making an important decision, I prefer to weigh up the pro's and con's rather quickly rather than spending a lot of time thinking about it.

46. I get up early, stay late or skip meals in order to get special tasks done.
47. What we are used to is usually better than what is unfamiliar.
48. Most people think that I am stubborn.
49. People's failures are rarely the result of their poor judgement.
50. Sometimes I have so many ideas I do not know which one to pick.
51. I find it easy to relax on holiday.
52. I get what I want from life because I work hard to make it happen.
53. It is harder for me to adapt to change than keep to routine.
54. I like to start new projects that may be risky.

SOAL SELIDIK III

- 1. Saya tidak keberatan melakukan kerja-kerja biasa sekiranya pendedaannya lumayan.
- 2. Apabila saya dituntut melakukan sesuatu, saya lebih suka memilih masalah yang lebih mencabar.
- 3. Saya tidak suka memojai myself.
- 4. Mereka yang berkeputusan gagal mencapai kejayaan kerana mereka tidak menggunakan peluang-peluang yang ada.
- 5. Saya jarang berangan-angan.
- 6. Saya selalu mempernambah pendapat saya sekiranya orang tidak bersetuju.
- 7. Kejayaan tidak banyak ditentukan oleh usaha tetapi bergantung kepada ketekunan dan kemujuran.
- 8. Adalahnya jika saya ditugaskan lain dari yang lain.
- 9. Sekiranya saya mempunyai \$1,000, saya lebih suka membuka akaun simpanan tetap atau melabur dalam Amanah Saham Nasional daripada menginvestasikan sebagai modal untuk memulakan perniagaan secara kecil-kecilan.
- 10. Saya sukakan tugas-tugas yang sangat mencabar daripada menjalankan tugas-tugas yang mudah.
- 11. Saya lebih sukakan pekerjaan tetap dengan gaji yang berpuatun daripada pekerjaan yang memerlukan pencapaian prestasi yang tinggi serta tidak terjamin.
- 12. Saya lebih suka menjalankan kerja dengan cara yang tersendiri tanpa menghiraukan pendapat orang lain.
- 13. Kesukahan yang dialami oleh seseorang kerap kali disebabkan oleh sebab-sebabnya sendiri.
- 14. Saya suka mencuba sesuatu walaupun saya terpaksa menghadapi masalah.
- 15. Apabila saya menghadapi masalah dalam sesuatu tugas, saya akan inggalkannya dan tertutuk dengan urusan lain.
- 16. Apabila saya mencuba untuk melakukan sesuatu, sebolehnya bolehnya saya akan cuba melaksanakan rancangan saya itu.
- 17. Saya tidak suka perubahan-perubahan mendedak dalam kehidupan saya.
- 18. Saya sanggup menghadapi risiko sekiranya peluang-peluang kejayaan atau kegagalan 50/50.
- 19. Saya lebih banyak memikirkan hal-hal yang telah dan sedang berlaku daripada hal-hal yang akan berlaku.
- 20. Sekiranya saya ada idea baik untuk sesuatu, saya tidak teragak-agak memujurkannya sebagai modal.

Untuk kegunaan
Pejabat sahaja

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APPENDIX 4b: THE MODIFIED GET TEST (IN MALAY)

Untuk kegunaan
Pejabat sahaja

- 21. Apabila berada dalam dalam sesuatu kumpulan, saya lebih suka orang lain mengaturnya.
- 22. Kita selalu mendapat ganjaran yang setimpal dengan usaha kita.
- 23. Saya tidak gemar membuat masalah.
- 24. Melaksanakan tugas dengan sempurna adalah lebih utama daripada memuaskan hati orang.
- 25. Saya boleh memulakan sesuatu yang saya benci jika saya pandai mengambil hati orang yang mempengaruhi diri saya.
- 26. Orang menganggap saya terlalu banyak bertanya.
- 27. Saya tidak akan melakukan kerja yang bertekad akan gagal.
- 28. Saya tidak berasa senang dengan orang yang tidak mencapai masa.
- 29. Sebelum membuat sesuatu keputusan saya lebih suka mengumpul semua fakta walaupun ia memakan masa.
- 30. Saya jarang sekali meminta bantuan ketika menjalankan sesuatu tugas.
- 31. Kejayaan tidak akan tiba jika tidak kena pada tempat dan masanya.
- 32. Saya lebih suka berkebolehan dalam banyak bidang daripada menjadi pakar dalam satu bidang sahaja.
- 33. Saya lebih suka bekerja dengan seseorang yang saya senangi walaupun dia tidak sebangun dengan saya daripada bekerja dengan orang yang tidak saya senangi walaupun dia amat cekap bekerja.
- 34. Kejayaan adalah hasil kerja keras dan bukan ditentukan oleh nasib.
- 35. Saya lebih suka menjalani tugas seperti biasa daripada mencuba cara-cara yang baru.
- 36. Sebelum membuat keputusan yang penting, saya lebih suka mempertimbangkan baik buruknya dengan segera daripada membiarkan masa memikirkannya.
- 37. Saya lebih suka kerja secara bertumpuan daripada memikul tanggungjawab sepenuhnya sendiri.
- 38. Saya lebih suka merebut peluang yang mungkin dapat memberi jalan ke arah kehidupan dan masa depan yang lebih baik daripada semata-mata berpuas hati dengan kejayaan sebarang.
- 39. Saya mencampurkan tanggungjawab sebagaimana dibarapkan dan patuh pada arahan.
- 40. Bagi saya, mencapai sesuatu tidak begitu bergantung pada nasib.
- 41. Saya suka hidup secara teratur supaya segalanya berjalan lancar seperti yang dijadualkan.
- 42. Apabila saya menghadapi sesuatu tugas, saya lebih suka memikirkan hasil kejayaannya daripada kesan kegagalannya.
- 43. Saya percaya, apa yang berlaku dalam hidup saya kebanyakannya banyak dipengaruhi oleh orang lain.
- 44. Saya boleh melakukan pelbagai tugas serentak.
- 45. Saya keberatan meminta bantuan dari orang lain.

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Ujian kegunaan
Pegawai sahaja

46. Saya bangun awal, tidur lewat atau tidak keluar makan kerana hendak menyelesaikan sesuatu tugas penting.
47. Seseorang yang laraun bagi kita, selalunya lebih baik daripada seseorang yang tidak biasa.
48. Kebanyakan orang menganggap saya kerja hari (tidak mahu mengambil).
49. Kegagalan seseorang bukan selalu kerana kelamkaban membuat perancangan (uluc-mencu).
50. Kadang-kadang saya mempunyai begitu banyak idea hingga sukar hendak memulau pilihan (keputusan).
51. Saya sanggup-sanggub dapat berenang pada hari esok atau minggu minggu.
52. Saya perolehi apa yang saya mahu kerana saya berusaha berusaha berusaha-sanggub untuk mencampuruk-hanya.
53. Saya lebih senang bekerja mengikut kelaziman daripada menyesuaikan diri dengan perubahan.
54. Saya suka memulakan project baru walaupun mengahedapi risiko.

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MAIN LECTURERS INTERVIEW QUESTIONNAIRE

This questionnaire is part of my doctoral research investigating enterprise learning and career aspirations towards entrepreneurship and small businesses in Malaysia. I am asking the same questions of a sample of more 60 lecturers of higher education in Malaysia. The questionnaire has been designed for ease of completion and many of the questions require only the ticking or circling of appropriate answers. The completed questionnaire is confidential. When the answers are coded for analysis in the computer, no names or addresses will be included, and the reports of this research will be written so that no individual can be identified. I am very grateful for your help in this research.

Salleh Hj. Din
 Doctoral Research Student
 Durham University Business School
 Mill Hill Lane
 Durham DH11 3LB
 Tel. No. 091 3743369

A. YOUR PERSONAL DATA

1. University/Institute/College _____
2. Faculty/School/Department _____
3. Age (as of 1st June, 1990) _____ Years
4. Sex: MALE FEMALE
5. Race: CHINESE INDIAN MALAY
 OTHER Please specify _____
6. Religion: BUDDHISM CHRISTIANITY HINDUISM
 ISLAM OTHER Please specify _____
7. Marital status: SINGLE MARRIED
 If married how many children do you have? _____

1 2 3

4

5

6 7 8 9 10

11

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13 14

B. YOUR EDUCATION AND TRAINING

Please indicate, by a tick in the appropriate box, your academic/professional education and specify your major field or area of specialisation

ACADEMIC/PROFESSIONAL QUALIFICATIONS	MAJOR FIELD/AREA OF SPECIALISATION
Diploma <input type="checkbox"/>	_____
Bachelor's degree <input type="checkbox"/>	_____
Masters Degree <input type="checkbox"/>	_____
PhD <input type="checkbox"/>	_____
Professional <input type="checkbox"/>	_____
Certificate <input type="checkbox"/>	_____

2. So far, what sort of teacher training have you received?

Untrained

Teacher Certificate

Diploma in Education

Degree in Education

Workshop/Short course on teaching

Specialised course on teaching small business and/or entrepreneurship

3. If you are trained as a teacher/lecturer, please indicate which age range you are trained to teach?

AGE RANGE

Primary

Secondary

Higher education

Adult education

Others, please specify

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4. Have you ever taken any courses in small business or entrepreneurship previously?

YES NO

C. YOUR TEACHING EXPERIENCE

37

1. How many years of college/university teaching experience have you had?

_____ years

41

2. Have you ever taught any small business or entrepreneurship courses?

YES NO

42, 43

3. What is your predominant teaching or subject area? The predominant area is the area that is closest to the one in which you teach the most classes. Please tick one only.

- Finance
 - Accounting
 - Economics
 - Small business/entrepreneurship
 - Mathematics/Statistics/Quantitative methods
 - Marketing
 - Computer
 - International business
 - Management
 - Law
 - Public administration
 - Other
- (specify) _____

4a) Have you ever given a learning style questionnaire/inventory to your students at this university/college?

YES NO

b) If yes, please specify the type of learning style questionnaire used.

5. Have you yourself ever completed a learning style questionnaire/inventory prior to this study?

YES NO

D. YOUR PREVIOUS WORKING EXPERIENCE (other than teaching)

1. How many full-time jobs have you had since your completion of your secondary education?

- 0
- 1
- 2
- 3
- 4
- 5 or more

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2. If you had a full-time job after your secondary education, what type of organization have you worked for? Please tick the relevant category/ies and specify the approximate duration of each of the category of experience (in years).

Category/ies	Duration (in year/s)
Public sector organisation <input type="checkbox"/>	_____
Large business/multinational (with 100 or more employees) <input type="checkbox"/>	_____
Voluntary organisations/charities <input type="checkbox"/>	_____
Large private professional practice (with 20 or more employees) <input type="checkbox"/>	_____
Small private professional practice (less than 20 employees) <input type="checkbox"/>	_____
Small business (less than 100 employees) <input type="checkbox"/>	_____
Other (specify) _____ <input type="checkbox"/>	_____

3. Have you ever had the following experience/s? Please tick the relevant category/ies.

Experience in selling	<input type="checkbox"/>
In charge of other people at work	<input type="checkbox"/>
Keeping business accounts or parts of the accounts	<input type="checkbox"/>
Running an organisation of any kind	<input type="checkbox"/>
Involved in trading goods and services for your own business	<input type="checkbox"/>
Involved in trading goods and services for someone else	<input type="checkbox"/>
Working alongside an independent small business owner/manager	<input type="checkbox"/>
Working alongside a small private professional practitioner	<input type="checkbox"/>

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E. YOUR SPOUSE, PARENTS, GUARDIAN, RELATIVES AND FRIENDS
 1. Please tick to indicate the highest level of education of your spouse, father, mother or your guardian

	Spouse	Father	Mother	Guardian
No formal education				
Primary education				
Secondary education				
College or university education				

2. Please tick to indicate your spouse and parents/guardian main occupation.

	Spouse	Father	Mother	Guardian
Professional - self employed				
Professional - employee				
Managerial & administrative positions				
Clerical				
Skilled worker				
Unskilled worker				
Teacher				
Nurse				
Police or army				
Self employed small business owner manager				
Housewife				
Other, please specify _____				

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3. Please tick in the appropriate boxes to indicate the type of organisation of your spouse and parents/guardian main occupation.

	Spouse	Mother	Father	Guardian
Public sector organisation				
Large business/multinational (with 100 or more employees)				
Voluntary organisation/charity				
Large private professional practice (with 20 or more employees)				
Small private professional practice (less than 20 employees)				
Small business (less than 100 employees)				
Other (specify) _____				

4. Please tick in the appropriate boxes.

91 YES NO

94 Have either of your grandparents ever owned or run their own business/private professional practice.

95 Have either of your parents ever owned or run their own business/private professional practice - full time.

96 Have either of your parents ever owned or run their own business/private professional practice - part time.

97 Has your spouse ever owned or run his/her own business/private professional practice - part time.

97 Has your spouse ever owned or run his/her business/private professional practice full time.

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Have any of your other close relatives owned or run their own business/private professional practice

Have any of your personal friends owned or run their own business/private professional practice

Other than your relatives or friends, have you any of your acquaintances or contacts owned or run their own business/private professional practice

Have you yourself ever owned or run a business/private professional practice.

YES NO

F. CAREER

1. Can you please indicate how much INFLUENCE you think you have on your student ideas about their career?

Very Great Deal of Influence

Great Deal of Influence

Some Influence

Little Influence

No Influence

2a) Was university/college teaching your intended career idea while you were studying in the university?

YES NO

b) If NO, was your intended career

104 Working in a large private sector organisation?

105 Working in other public sector organisation?

106 Working in a large private professional practice?

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- Working in small private professional practice but not necessarily as owner?
- Self employed in own private professional practice
- Self employed and running your own business?
- Other (please specify) _____

4a) Have you formed a firm view of the type of organisation you ideally would like to work in 5 YEARS FROM TODAY.

YES NO

b) If YES, is it

- Working in a large private sector organisation?
- Working in a public sector organisation?
- Working in a large private professional practice?
- Working in a small business but not necessarily as owner?
- Working in a small private professional practice but not necessarily as owner?
- Self employed in own private professional practice?
- Self employed and running your own business?
- Others (please specify) _____

5. What would be the THREE MAIN BARRIERS to set up your own business or private practice (Tick the MOST IMPORTANT THREE)

- Lack of finance
- Lack of a business idea
- Lack of interest/commitment
- Lack of advice
- Lack of market information
- Parental/family opposition
- Lack of technical or product knowledge
- Lack of business management skills
- Lack of knowledge how to start a business
- Others (please specify) _____

6a) Have you ever had a business idea and wished to start up in small business/private practice yourself?

YES NO

b) If YES, from where did this idea originate? Please tick the relevant category/ies.

- Work experience
- Education and training
- Family and close relative
- Friend
- Other (please specify) _____

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G. PERCEPTION OF STUDENTS' LEARNING STRATEGIES

1. For each of the competencies marked a-j below, please TICK THE APPROPRIATE BOX to indicate the extent to which the students at this college/university, in general, are EXPECTED TO ACQUIRE the following competencies/attributes in their learning process at this college/university

COMPETENCIES	Very Critical	4	3	2	1	Not At All
a) Creativity	15					
b) Persuasiveness						
c) Leadership						
d) Independence						
e) Analytical ability						
f) Imagination						
g) Ability to deal with ambiguity						
h) Achievement oriented						
i) Persistence						
j) Self confidence						

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2. For each of the following elements of education marked A-C below, please CIRCLE THE APPROPRIATE NUMBER to indicate the extent to which they are being practiced at this college/university.

ELEMENT OF EDUCATION

A) LEARNING OBJECTIVES determined by lecturer

1 2 3 4 5

Negotiated with students

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B) CURRICULUM EMPHASIS a. Emphasis on theory and knowledge.

1 2 3 4 5

Emphasis on practice, "hands on experience" and process

C) ROLE OF LECTURER a. Expert who hands down knowledge

1 2 3 4 5

Facilitator who also learns

D) ROLE OF STUDENTS a. Learner receiving knowledge

1 2 3 4 5

Students generating knowledge

E) TEACHING METHODS a. Chosen by lecturers

1 2 3 4 5

Negotiated with students

b. Learning in classroom

1 2 3 4 5

Learning by doing

c. Sessions are structured and inflexible

1 2 3 4 5

Sessions are unstructured and flexible

F) EVALUATION a. Success is measured by examination grades

1 2 3 4 5

Success is measured by self-development

3. For each of the following teaching strategies marked a-f below please rate to what extent each of the following teaching strategies adopted by you during the last two semesters at this college/university:

	Very Great Extent	Great Extent	Moderate Extent	Little Extent	Not at All
a) Lecture					
b) Case study					
c) Role playing exercises					
d) Programmed learning					
e) Written assignments and projects given by you					
f) 'Real problem' simulation					
g) Classroom discussion on model, concepts and theory					
h) Business games or other competitive exercises					
i) Project work on real problems					
j) Observing a group at work					
k) Field study (trips)					

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- m) Small business owners as guest speakers or discussions
- n) Civil servants as guest speakers or discussions
- o) Corporate managers as guest speakers or discussions
- p) Small private professional practitioners as guest speakers or discussions
- q) Watching film or video
- r) Other (please specify _____)

	Very Great Extent	Great Extent	Moderate Extent	Little Extent	Not at All

H. PERCEPTION OF ENTREPRENEURS

1. Below is a series of statements related to entrepreneurs. Please indicate the extent to which you strongly agree or disagree with each statement by circling the appropriate number. There is no right or wrong answer.

Strongly Agree Strongly Disagree

With a bit of training, anyone can be an entrepreneur.

5 4 3 2 1

Entrepreneurs are born, not made.

5 4 3 2 1

Entrepreneurs expect employees to work harder than large established companies or governmental organizations.

5 4 3 2 1

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	Strongly Agree	4	3	2	1	Strongly Disagree
Entrepreneurs couldn't fit into a normal, salaried job	5	4	3	2	1	
Entrepreneurs really enjoy their work.	5	4	3	2	1	
Entrepreneurs deserve every cent they get	5	4	3	2	1	
Entrepreneurs are in charge of their own lives.	5	4	3	2	1	
Entrepreneurs earn a lot of money.	5	4	3	2	1	
Entrepreneurs are just irresponsible gamblers.	5	4	3	2	1	

1 Lastly, I am interested in how you would rate your college/university and your department/school on their enterprising competencies. Stated quite simply, an enterprising organization is one which has shown a marked use of a combination of enterprise attributes such as creativity, persuasiveness, independence, leadership, achievement orientation, persistence, and an ability to cope with uncertainty.

2. Using the above definition of enterprising, please indicate the extent to which you strongly agree or disagree with each statement by circling the appropriate number.

	STRONGLY AGREE	6	5	4	3	2	1	STRONGLY DISAGREE
a) This college/university is enterprising.	7	6	5	4	3	2	1	
b) This department/school is enterprising.	7	6	5	4	3	2	1	
c) This college/university provides me the opportunity to be enterprising.	7	6	5	4	3	2	1	

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I would like to thank you again for taking the time to assist me in my work.

APPENDIX 6

ABBREVIATIONS

FRIM	Forest Research Institute of Malaysia
ITM	Institut Teknologi MARA (MARA Institute of Technology)
MARA	Majlis Amanah Ra'ayat (Council of Trust for Indigenous People)
MARDI	Malaysia Agricultural Research Development Institute
SIRIM	Standards and Industrial Research Institute of Malaysia

KEY

Bus.	Business
Christ.	Christianity
Empl.	Employed
Enterpg.	Enterprising
Grad.	Graduating
Org.	Organisation
Polit.	Polician
Pref.	Preference
Priv. Prof. Prac.	Private Professional Practice
SBO	Small Business Owner-Manager
SPP	Small Private Professional Practice
Stud.	Student
Volunt. Org.	Voluntary Organisation

