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A COMPARATIVE STUDY OF THE COST OF GOVERNMENT AND PRIVATE SECONDARY SCHOOLS IN MALAYSIA

by

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requirements for the degree of Doctor of Philosophy
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ABSTRACT

A COMPARATIVE STUDY OF THE COSTS OF PRIVATE AND GOVERNMENT SECONDARY SCHOOLS IN MALAYSIA

Nor Shirin Md-Mokhtar

Education privatization has been perceived in developing countries as a strategy to deal with issues of access, quality, choice, and efficiency. To the Malaysian government, education privatization is a partnership to share the costs burden of educating all sectors of society. While education privatization has expanded in Malaysia in recent years, there is no information on comparative costs between private and government schools so far. Because the key stage for students competing for college admission is secondary school, this study compares the costs of private and government schools at this crucial level. This study provides the cost information to inform issues regarding the relative cost-effectiveness of private and government secondary schooling, and the inequity implications of education privatization, thus contributing to the empirical and analytical bases for government policy regarding privatization. Empirical evidence shows that per-student costs of secondary schools are significantly higher in private schools than in government schools. Private resources for schooling constitute a significant part of the total cost of education and are associated with educational inequality for different household income groups and geographical zones. This study documents that education privatization is inequitable as lower-income households have higher economic burden than higher-income households. Finally, private and government

schools differ significantly in the ethnic composition of their students. Education privatization raises questions about national unity.

TABLE OF CONTENTS

CHAPTER I **1**

INTRODUCTION **1**

I.1. Problem statement 3

I.2. The educational system in Malaysia 6

I.3. Private education in Malaysia 14

I.4. Evolution of private schools 18

I.5. Proposed research 27

I.6. Objective of study 28

I.7. Significance of study 28

I.8. Organization of the dissertation 30

I.9. Definition of terms 30

CHAPTER II--LITERATURE REVIEW **34**

Introduction **34**

II.1. Conceptual issues 34

II.2. Methodological issues 36

II.3. Evidence from Southeast Asia experience 43

CHAPTER III - METHODOLOGY **55**

Introduction **55**

III.1 Research questions 56

III.2. Conceptual framework 57

III.3 Role of government vs. role of private sector 59

III.4 Research design 65

III.5. Data description 76

CHAPTER IV – FINDINGS **87**

Introduction **87**

IV.1. Treatment of raw data 87

IV.2. Characteristics of sampled schools 90

IV.3. Institutional costs and private costs, 2003 93

IV.3.1. Recurrent costs per student, 2003 93

IV.3.2. Capital costs per student, 2003 102

IV.3.3. Institutional costs per student, 2003 105

IV.3.4. Private resources, 2003 109

IV.3.5 Total costs per student, 2003 113

IV.4. Private resources for schooling 118

IV.4.1. Private resources of schooling, 2003 118

IV.5. Household contributions, 2003 124

IV.6. Economic burden of private resources 125

IV.7. Cost differences in 1996 and 2003 128

IV.8. Summary of findings 130

CHAPTER V - CONCLUSIONS AND POLICY IMPLICATIONS **133**

V.1. Summary of key findings 133

V.2. Policy implications 135

V.3. Recommendations and suggestions for further research 140

REFERENCES **143**

APPENDICES **153**

Appendix 1(a): List of government schools **153**

Appendix 1(b): List of private schools **154**

Appendix 2: Questionnaires **155**

Questionnaire A: School principal questionnaire 156

Questionnaire B: Parent(s)/guardian(s) of Form Two questionnaire 161

Appendix 3: Approval letters.....178

Appendix 4: Informed consent form: Participant's rights.....189

LIST OF TABLES

Table 1.1: Enrollment ratio by level, 1980-2000 8

Table 1.2: Some comparisons and contrasts between government and private schools in Malaysia 15

Table 1.3: Enrollment in the standard education programs by level and sector, 2001 18

Table 1.4: Phases of evolution in private education 23

Table 1.5: Guidelines for free textbooks eligibility in national primary, secondary, technical and vocational schools 32

Table 2.1: Privately operated schools in nine countries (percent of total enrollment) 42

Table 2.2: Magnitude of private resources to public schooling in developing countries . 48

Table 2.3: Private resources to government and private primary schools in Thailand, 1987 (per grade 6 student) 49

Table 2.4: Expenditure incurred by parents by level of schooling and income (RM) for government schools only, Malaysia, 1996 50

Table 3.1: Distribution of states in Malaysia by zones 73

Table 3.2: Classification of areas by stratum 73

Table 3.3: Distribution of government and private secondary sample schools by states and urban areas 74

Table 3.4: Some guidelines in cost of infrastructure by zones (regular/day school) 84

Table 3.5: Some guidelines in cost of furniture and fittings and equipments for a new secondary school by different classrooms (urban area) 85

Table 3.6: Land at market value (urban area) by zones 86

Table 4.1: Characteristics of government and private secondary schools in Malaysia, 2003 92

Table 4.2: Per-student recurrent cost of government and private secondary schools in Malaysia, 2003 by type, by geographical zones, and by school session.....97

Table 4.3: Per-student capital cost of government and private secondary schools in Malaysia, 2003 by type, by geographical zones, and by school session.....97

Table 4.4: Per-student recurrent costs of secondary schools in Malaysia, 2003 (RM/student/year) 98

Table 4.5: Institutional costs of secondary schools in Malaysia, 2003 by type and by geographical zone (RM/year).....99

Table 4.6: Regressions on per-student recurrent cost of secondary schools in Malaysia, 2003 99

Table 4.7: Regressions on per-student capital cost of secondary schools in Malaysia, 2003 106

Table 4.8: Private resources to government and private secondary schools in Malaysia, 2003 (RM/year/per Form Two student) 108

Table 4.9: Per-student total costs of government and private secondary schools in Malaysia, 2003 by type (RM/student/school year) 115

Table 4.10: Per-student total costs of government and private secondary schools in Malaysia, 2003 by type (RM/student/school year) 115

Table 4.11: Private resources to government and private secondary schools in Malaysia, 2003 by income group and type 122

Table 4.12: Private resources to government and private secondary schools in Malaysia, 2003 by regional zone and type 123

Table 4.13: Private resources to secondary education as a percentage of household expenditures, Malaysia, 2003 127

Table 4.14: Characteristics of secondary government schools in Malaysia, 1996 and 2003 128

Table 4.15: Per-student costs in government secondary schools in 1996 and 2003..... 128

Table 4.16: Summary on per-student costs in government and private secondary schools in Malaysia, 2003 131

Table 5.1: Summary of advantages using four-criterion framework: government schools versus private schools 139

LIST OF FIGURES

Figure 1.1: Structure of public education in Malaysia..... 11

Figure 1.2: Structure of private education in Malaysia.....12

Figure 2.1: Education costs..... 39

Figure 3.1: The human capital approach..... 58

Figure 4.1: Per-student recurrent costs of secondary schools in Malaysia, 2003(RM/year) 99

Figure 4.2: Per-student capital costs of secondary schools in Malaysia, 2003 (RM/year)99

Figure 4.3: Per-student institutional costs of secondary schools in Malaysia by type (RM/year)..... 107

Figure 4.4: Private resources to secondary schools in Malaysia, 2003 by school type (per Form Two student)..... 112

Figure 4.5(a): Source of funding of government and private secondary schools in Malaysia, 2003.....117

Figure 4.5(b): Source of funding of government and private secondary schools in Malaysia, 2003.....117

Figure 4.6: Instruction-related and non-instruction-related items of government and private secondary schools in Malaysia, 2003 (RM/student/year)..... 120

Figure 4.7: Trend line for private resources to government and private secondary schools in Malaysia, 2003 by income group and type..... 122

Figure 4.8: Trend line for private resources to government and private secondary schools in Malaysia, 2003 by regional zone and type 123

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CHAPTER I

INTRODUCTION

Education issues remain an important priority in developing countries. Because resources are limited and ensuring adequate allocation is a struggle for many countries, the delivery of educational services has become a challenge. Malaysia, like other countries in Southeast Asia, faces similar challenges in ensuring the allocation of appropriate funding for efficient and equitable educational services in order to promote access to quality education for all social groups (MoE, 2002; Karim, 1992).

The importance of education goes beyond economic development. It plays a major role in promoting national unity among Malaysia's multi-ethnic groups and diverse cultures. This goal of promoting national unity is embedded in Malaysia's New Economic Policy of 1971,[1] as well as other legislation designed to redress the economic imbalances between ethnic groups, which became a national concern as a result of the 1969 ethnic conflict. The ethnic conflict was related to extensive poverty, high unemployment, and underemployment among the indigenous *Bumiputera* (specifically *Malay*) population, which had contributed to unbearable dissatisfaction that led to communal rioting in 1969 (World Bank, 1999). In a conscious effort to deal with the multi-ethnic groups, diverse cultures, and different faiths, the formulation of educational policies was an attempt to mend the rift between the different races (Mohamad, 2003). The Ministry of Education [MoE] continues to foster and exercise its responsibility as the

[1] The New Economic Policy, introduced in 1971, was one of Malaysia's socio-economic policies designed to achieve national unity and development by focusing on eradicating poverty and restructuring Malaysian society to eliminate the identification of race with economic function and geographical location (MoE, 2001:12).

prime mover in the government's efforts to achieve unity among students in Malaysia's multi-racial society (Mohamad, 2002).

The continued growth in the level of educational spending is noteworthy in both the fiscal effort[2] on education and national effort[3] on education. Education in Malaysia has always been a priority of the government's development policy and, annually, it represents the biggest chunk of the national budget. It is also considered a pillar of national development and a prime factor in promoting the country's prosperity (Bajunid, 2002). The government has devoted a substantial amount of its resources to the sphere of education. For example, the last two decades (between 1980 and 2001), have seen an increase of 37% and 33% in the fiscal effort and national effort, respectively (MoE, 2001). This demonstrates great interest and reveals a need for additional research to study and elucidate multi-faceted factors affecting educational policy.

The government's commitment towards education is contained not only in the Federal Constitution; it is also included in the Education Act of 1996 through the provision of free education to every school-age child in the country for a period of eleven years for all its citizens (UNESCO, 2000). While government schools offer free[4] education for all students in government primary and secondary schools, the private sector schools do not. For more than five decades, the government has continued to be

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[2] Fiscal effort on education is defined as total public expenditures on education as a percentage of the total government expenditures (TGE)

[3] National effort on education is defined as total public expenditures on education as a percentage of gross national product (GNP)

[4] Free education is tuition-free for all eligible Malaysian citizens. In addition to being tuition-free, government schools also provide textbooks without charge, based on eligible parents' or guardians' income and the number of children per household attending school. However, for non-eligible students, e.g. a child from a foreign country, a minimum amount of fees is required. The requisite fees are RM120 per child in a primary school level and RM240 per child in a secondary school level (MoE, 2000).

the major provider of formal secondary education for ethnic groups through its government schools.

Private education, while still relatively small in scale compared to government education, has become more important at all levels in recent years. Much government attention has been given to private schools, particularly in urban areas, as a form of partnership, along with government efforts in the attempt to improve access to schooling, expand compulsory education, and deal with issues like choice and efficiency in delivering educational services. It is with such an awareness that this study aims to closely address, examine, and compare the costs of secondary schools, both government and private, in Malaysia.

I.1. Problem statement

Interest in privatization of education is emerging in Malaysia. Educational privatization has been perceived as a strategy for dealing with issues such as access, quality, choice, and efficiency. In Malaysia, Loke et al's (1999) study shows that private education is superior in students' achievement level to government schools. Because of this, increasing number of parents, as well as policymakers are concerned about increasing access to perceived quality education, and providing opportunities to choose private education. Funding equal access for all students remains a challenge. Private schools in Malaysia do not provide equal access to all students and are still far from enrolling representative types of students from all ethnic groups. Private schools have selective admission policies, which exclude many students. They also charge tuition,

which precludes access by the majority of families. The costs of schooling could be related to disparities and inequity in education.

An accurate, in-depth cost analysis has important implications for developing a realistic, fact-based and truly equitable educational policy of long-range benefit to the nation as a whole. Not only does it disclose cost implications of educational policies, it also assesses relative cost-efficiency of alternative educational policies and interventions (Tsang, 1988). More importantly, cost analysis suggests one way to inform the educational administrators and decision makers of the need to improve policymaking and evaluation in education. It is part of the analysis to compare the effects of government and private schooling with respect to stated educational objectives. Thus, cost analysis encourages a more careful estimation of government and private costs in order to provide unmet educational demands or serve population groups with particular educational needs.

The often-heard claim made by advocates of private schooling that private schooling is more effective and efficient than government schooling warrants further research (e.g. Jimenez, Lockheed and Paqueo, 1991, Jimenez and Lockheed, 1995; Loke et al 1999). The assertions are not surprising, though, as most of the arguments are based primarily on school effectiveness analysis, unadjusted for student intake characteristics, which is often based solely on test results with little or no consideration of costs estimates when making comparisons between government and private schools. In view of that, information on costs would be useful to assess the claim. Also policies favoring private schooling could increase dependence on family financing of education. This could also lead to increased inequity since the economic burden of schooling costs on families could be higher for families with lesser means.

Studies that compare the costs of government schools with the costs of private schools are sorely lacking (Tsang, 2002). One reason is the difficulty in data accessibility or availability, especially data from private schools and data on private spending on education. Studies of private schools in developing countries have generally found that institutional costs are underestimated, as a way of concealing the true resources required (Tsang, 2002).

Based on the observation that there has been no costs study comparing the government and private schools before in Malaysia, this dissertation could be of significant value not only to the government policy makers, but also to administrators and parents/families of students in both government and private schools, for reasons discussed earlier. This dissertation focuses on secondary education, as this is the key stage where students compete for admission to college. While admission to tertiary institutions is granted on a competitive basis and considers mutiple factors including extra-curricular activities, and the combination of subjects chosen by candidates, entrants are essentially selected on academic merit based on the achievement level in the upper-secondary examinations, Malaysian Certificate of education *(Sijil Pelajaran Malaysia).* These examinations are administered by the Ministry of Education at the end of the second year of upper secondary level, typically in Form Five (grade eleven). Therefore, this dissertation concentrates on the academic schools, which represent the largest segment of student enrollment in both the government and private sectors.

This trend towards increasing government support for expanding private sector schools is a fundamental change in Malaysia's national planning in education since 1996. Malaysia is now at a crossroads in the development of its policy direction. Thus, this

current study is crucial as part of on-going professional efforts by Malaysian educators and administrators to evaluate the implications of this policy trend. This research could inform the Malaysian government's policy on education and contribute to the decision-making processes. Further, it will enable concerned citizens, especially families/parents/guardians, to become better informed about education costs. Indeed, education is one of the determinants of individual and group socio-economic status, as well as to a nation's prosperity. It is important for families and policy makers to have access to accurate information on education. This study will fill an important gap in education research in Malaysia.

I.2. The educational system in Malaysia

The national education system encompasses all levels of education: namely, primary, secondary, and tertiary levels. Formal education in Malaysia is primarily based on the 6-3-2-2-3 setup: six years of primary school, three years of lower secondary school, two years of upper secondary school, two years of post secondary school, and three to five years of university education. Figure 1.1 gives the structure and coverage of the current education system in Malaysia.

Broadly, at the primary level, there are three types of schools in Malaysia: national schools, national-type schools,[5] and private schools.[6] At the secondary level,

[5] In national schools, the medium of instruction is the Malay language and English is a compulsory subject. However, the national-type schools, in line with servicing the needs of the multi-ethnic populace, use Chinese and Tamil as the medium of instruction. Malay and English languages are compulsory subjects.

[6] Private schools are schools that receive no financial-aid from the government.

there are three types of schools. Two types are assisted schools: one is government schools[7]managed by government education organizations, and the other is government–aided schools[8] managed by non-profit organizations. The third type is private schools that receive no financial aid from the government and are managed by private organizations or individuals. At the tertiary level, there are 11 government institutions, and 706 private institutions (MoE, 2002).

The academic year, as of 2003, for all schools in the government and private, commences in January and ends in October. All types of schools must adhere to the national curriculum, as well as to the prescribed schedule of national examinations set by the government according to the prescribed school calendar. In terms of national examinations, pupils are evaluated at four levels: the Primary School Achievement Test (*Unit Penilaian Sekolah Rendah*), which is at the end of the primary level; the Lower Secondary Assessment (*Penilaian Menengah Rendah*), which is at the end of the three years of lower secondary level; the Malaysian Certificate of Education (*Sijil Penilaian Malaysia*), which is at the end of two years of upper secondary level;[9] and the Malaysian Higher School Certificate (*Sijil Tinggi Penilaian Malaysia*), which is at the end of two years of post-secondary level.

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[7] Government schools are also known as national schools. These schools are established, funded, and managed by the government.

[8] Government-aided schools are schools that receive Grant-in-Aid and Capital Grant from the government.

[9] There are two types of program exist, namely, the Post-Secondary level (the Sixth Form) and the Matriculation Class. One is the Sixth Form program for two years, where at the end of it, students sit for the public post-secondary school examination, the Malaysian Higher School Certificate. The other one is the Matriculation program and it is specially designed preparatory classes that enable students to sit for examinations conducted by specific universities to meet their admission requirements. The duration of this program ranges from one to two years depending on the university, which offers the program (MoE, 2001)

The national examinations to determine admission to college are administered during September and October in both government and private schools. Since 1997, if students fail the required exam at the end of the lower secondary level, Form Three (equivalent to grade nine), they are still promoted to Form Four (grade ten). However, if students fail the exam mandated for all students in the upper secondary level, Form Five (grade eleven), they will not be able to advance to Form Six in the government schools. Some possible options for the students who fail to advance to Form Six are to seek training in polytechnic institutions, find suitable employment, or continue education in private schools.

Table 1.1 shows student enrollment by level in government schools between 1980 and 2000. Education at the primary level has become universal among all ethnic groups, both urban and rural, with a nationwide enrollment rate that has progressed from 94% in 1980 to 97% in 2000.[10]

Table 1.1: Enrollment ratio by level, 1980-2000

	Enrollment Ratio	
Education levels	1980	2000
Primary	93.6%	96.8%
Secondary:		
Lower	79.9%	85.0%
Upper	38.1%	72.6%
Tertiary:		
Form Six[11]	9.4%	16.2%
University	1.6%	8.1%

Source: MoE (2001)

[10] http://www.studymalaysia.com/is/education11.shml?

[11] The enrollment rates for other post-secondary levels are not available.

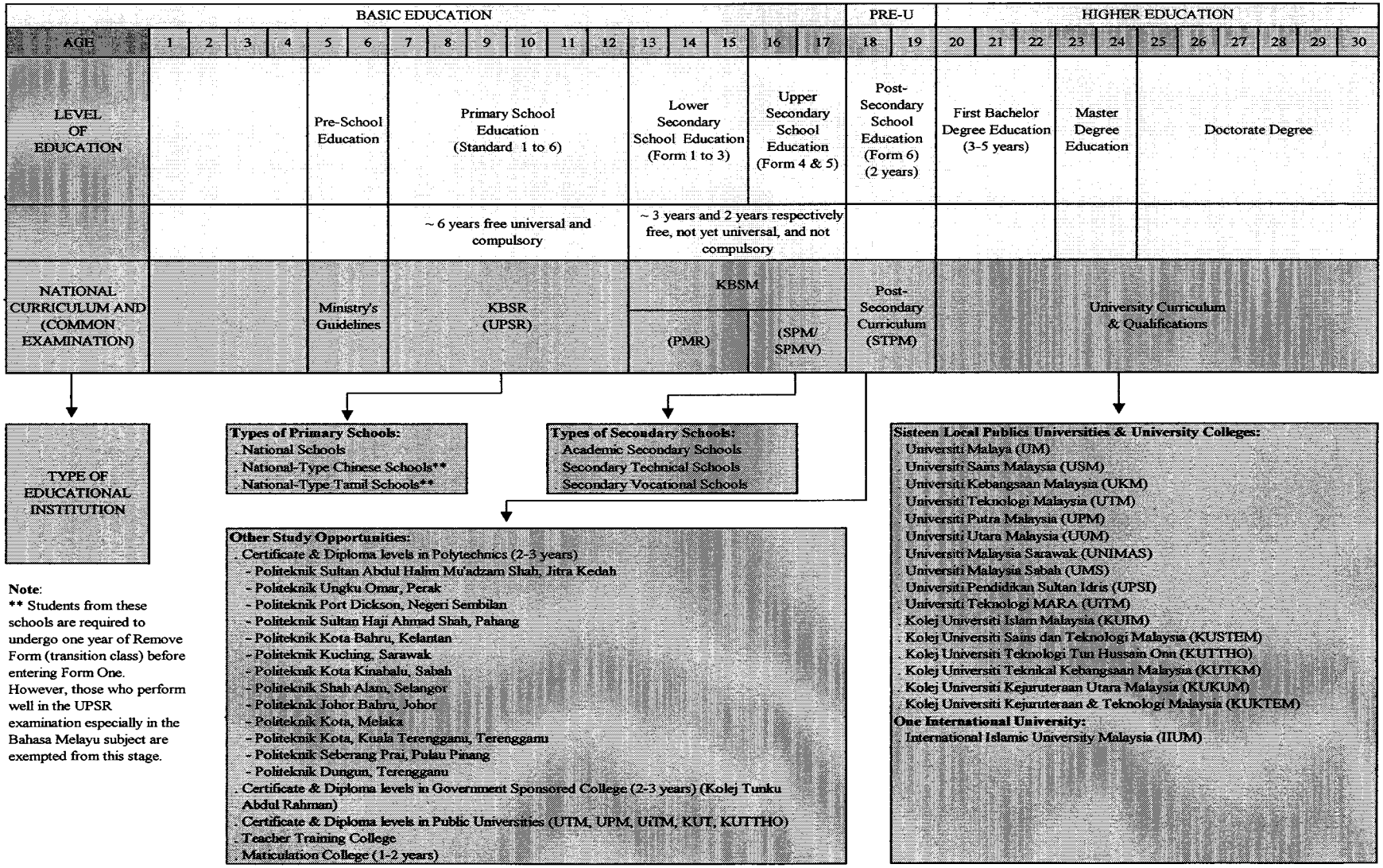
Given this latest development, all children who have completed primary school are required to go on to a three-year lower secondary school. All students who have completed lower secondary school are automatically eligible to apply for admission to upper secondary school, thus ensuring every child five years of secondary education and extending universal education from nine to eleven years. The enrollment ratio at the lower secondary school is 85%, marking an improvement of 6% between 1980 and 2000. The automatic promotion policy introduced by the MoE in 1997 has resulted in the enrollment rate increase for upper secondary school, i.e. Forms Four and Five, from 38% in 1980 to 73% in 2000 (MoE, 2001). Upper secondary schools are categorized into five types: regular, religious, special education, technical, and vocational schools. Regular schools, religious schools, and special education schools are standard educational programs that adhere to the academic national curriculum. In contrast, vocational schools, technical schools, tuition centers, language centers, computer learning centers, commercial skill training centers, and correspondence schools are non-standard educational programs that adhere to non-academic national curriculum.

Out of these types, regular and religious schools are streamlined into either the arts stream or science stream. Technical and vocational schools offer education at the upper secondary level only; these schools help to prepare students to pursue technical and scientific tertiary education for careers as technicians and semi-skilled workers.

Further, special education provides educational opportunities for students with special needs, such as students who are spastic, handicapped, visually impaired, hearing impaired, as well as those with learning disabilities who are given an extended time frame to complete their education. Some of the visually and hearing impaired students, as

well as those with learning difficulties, are placed within the mainstream school system as a way of integrating them with other students. Currently, 489 schools in the country are equipped with both teaching and staff facilities (MoE, 2001).

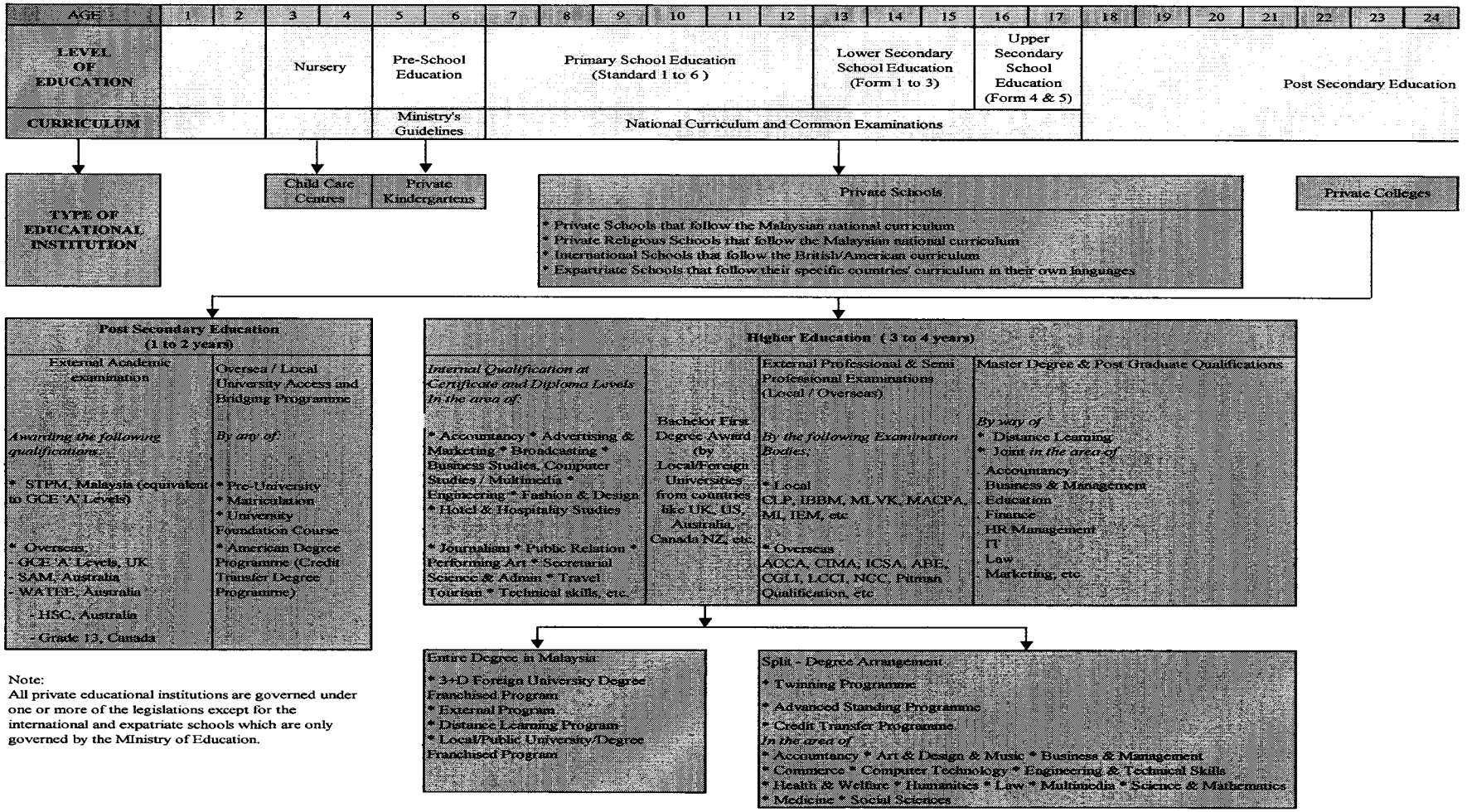
Figure 1.1: Structure of public education in Malaysia



Note:
** Students from these schools are required to undergo one year of Remove Form (transition class) before entering Form One. However, those who perform well in the UPSR examination especially in the Bahasa Melayu subject are exempted from this stage.

Source: Study in Malaysia Handbook (2003)

Figure 1.2: Structure of private education in Malaysia



Note:
All private educational institutions are governed under one or more of the legislations except for the international and expatriate schools which are only governed by the MInistry of Education.

Source: Study in Malaysia Handbook (2003)

In Malaysia, the tertiary education system has numerous facets, including Form Six, matriculation classes, polytechnics, colleges, and universities under the Ministry of Education, as well as institutes run by other government agencies such as the *Majlis Amanah Rakyat*, the Ministry of Human Resources, the Ministry of Health, the Ministry of Agriculture, and the Ministry of Youth and Sports. As shown in Table 1.1, in 2000, statistics show an enrollment rate of 16.2% and 8.1% in the Form Six and in the university level, respectively.

Education is a federal responsibility of the Malaysian constitution. The administration of education is highly centralized. Administrative responsibilities are divided into four distinct hierarchical levels: federal (Ministry of Education, Malaysia), state (the State Education Departments), district (the District Education Offices), and school levels. At the federal level, the MoE prescribes the curricula, syllabi, and the examination systems for all schools, government and private. Locally, the State Education Departments and the District Education Offices monitor the implementation of educational programs. They provide feedback on a regular basis to assist the Ministry in the overall planning. The District Education Offices also serve as a link between schools and the State Education Departments.

In terms of trends in total public expenditure on education, as of fiscal year 2003,[12] total public expenditure for education amounted to RM 28.231 billion, which accounted for 8% of national income (national effort on education) and 26.4% of the total government expenditures (fiscal effort on education). In 2002, 69.8% of the total public

[12] Ministry of Finance, Malaysia (2003)

expenditure on education was spent on preschool, primary, and secondary education; 14.2% was spent on higher education (MoE, 2003a).

I.3. Private education in Malaysia

According to the definition provided by the Ministry of Education, private education refers to education provided to students by private educational institutions and it is unaided by the government (2003b: 1).[13] It is essential to distinguish the word "private", since the definitions in many developed countries differ from that in developing countries. In many developed countries, private schools' subsidies cover a large proportion of total expenses, and government control over the hiring and firing of teachers, salaries, and student admissions criteria accompany these subsidies (James, 1993: 574).

In Malaysia, private schools are self-sponsored and self-financed independent schools. Private schools receive no financial-aid from the government. Unlike private schools in some other countries, private schools in Malaysia are not subsidized by the government. Private schools have autonomous selective admission policies, which exclude many students. They also charge tuition, which precludes access by the majority of families. The entrance fees and tuition fees for private schools vary greatly from one school to the other. Private schools serve a small percentage of students in secondary schools in Malaysia who are mainly well-to-do families in urban areas.

Loke et al (1999) compare the characteristics of government and private secondary schools in Malaysia, such as administration, school session, class size,

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[13] Private Education Division, Ministry of Education (2003). Available at http://www.studymalaysia.com/is/education12.shtml

achievement level of students, socioeconomic status and school infrastructures as shown in Table 1.2. These are obvious differences between schools in the two sectors.

The current study (as displayed in the subsequent chapter IV, Table 4.1) shows that the average size of private schools is about one-third of that of government schools. Private schools have a lower student-teacher ratio than government schools; and two-thirds of them operate for a single session per day. The majority of government schools, 55%, operate as double-session schools.

Table 1.2: Some comparisons and contrasts between government and private schools in Malaysia

Government schools	Private schools
▪ More centralized form of administration	▪ Decentralized and less bureaucratic in administration
▪ Operate two sessions a day (morning and afternoon)	▪ Operate one session a day
▪ Have large classes ranging from 1:40-1:50 (especially in urban schools)	▪ Have small classes ranging from 1:10 to 1:20 (ratio of teacher/student)
▪ Have mixed achievement level of students	▪ Have mixed achievement level of students
▪ Parents are from mixed socioeconomic status	▪ Parents are from high socioeconomic status
▪ Most buildings are old although new schools have new buildings and are equipped with better facilities	▪ Modern buildings, better facilities and excellent services

Source: Loke et al (1999)

Private education providers in Malaysia can be divided into two broad categories by level. One is private educational schools/ institutions (PEI). The other is private higher educational institution (PHEI). The PEI offers standard education programs from the pre-school level to the post-secondary school level. They include:

1. private kindergartens that follow MoE's pre-school curriculum guidelines;

2. private academic primary and secondary schools that are based on the national curriculum and national public examinations;
3. private religious primary and secondary schools that are based on the national curriculum and national public examinations;
4. Chinese independent secondary schools (although the curriculum follows the guidelines of the MoE, the medium of instruction in these private schools is Mandarin) that have similar national public examinations;
5. international/expatriate kindergartens, primary and secondary schools, whereby the curriculum is an international curriculum set by the home countries of the expatriates such as British, American, Taiwanese, Arab, Indonesian and others;
6. special education schools that cater to the needs of physically and mentally handicapped children.

The private higher educational institution (PHEI), better known as *Institut Pengajian Tinggi Swasta (IPTS)*, offers students a variety of higher education services ranging from local examinations, such as the post-secondary examination known as *Sijil Tinggi Pelajaran Malaysia,* to external examinations by foreign countries such as GCE 'A' Levels (UK), LCCI (UK), SAM (Australia) or other equivalent foreign qualifications, certificate, diploma, and degree awarded to local and foreign students. They include:

- *IPTS* (Non-University Status Institution) from private colleges award internal certificate and diploma qualifications, franchised degree programs, as well as external semi-professional and professional qualifications; and

- *IPTS* (University Status Institution) from private universities, and university colleges, and branch campuses of foreign universities.

Figure 1.2 gives the overall structure and coverage of private education in Malaysia. Table 1.3 shows the enrollment by level and by sector in 2001. In the standard education program, private education accounts for 1.0% at the primary level, 4.0% at the secondary level, and 90.0% at the tertiary level.

Besides the standard education program, private schools also offer non-standard education program, such as tuition centers, i.e. form the majority of enrollment of private schools, which offer private fee-based tutoring; language centers; computer learning centers; commercial skill training centers; and correspondence centers. They offer tutorial support to help improve a student's study skills and academic performance in the regular schools, as well as to serve as learning centers for languages and commercial skills.

While private educational institutions are required to adhere to the education legislations[14] for all levels of education, they are also required to be registered and be approved by the Ministry of Education (MoE, 2003b) to ensure education quality and adherence to national curricular requirements.

[14] Private Education Division, MoE (2003b). Available at http://www2.moe.gov.my/~jps/Menu/Pendidikan2.htm

Table 1.3: Enrollment in the standard education programs by level and sector, 2001

	2001						
	Government		Private		TOTAL		
	Institution	Enrollment	Institution	Enrollment	Institution	% Enrollment Government	% Enrollment Private
Primary	7305	2,916,841	64	16,548	7369	99%	1%
Secondary	1713	2,015,579	209	82,085	1922	96%	4%
Tertiary	11	30,477	706	270,904	717	10%[15]	90%[16]

Source: MoE (2002)

I.4. Evolution of private schools

For the government, privatization represents the opportunity of forging partnership with the private sector to share the cost burden. A stronger impetus to strengthen the relationship between government and private schools is envisioned in the Third Outline Perspective Plan, 2001-2010.[17]

The government's current national educational policy calls for the following:

> " ... the private sector will be encouraged to increase their involvement in providing education at all levels to supplement and complement Government's efforts as well as to become the catalyst for developing education and training into an industry and foreign exchange earner" (Economic Planning Unit, 2001:161).

[15] Tertiary education documented includes only enrollment rate of eleven public universities: namely, UM, USM, UKM, UPM, UTM, UIAM, UUM, UNIMAS, UMS, UPSI, and UiTM.

[16] Post-secondary education includes four institutions: a) private higher educational institution (PHEI) at university status; b) private higher educational institution (PHEI) at university college status; c) private higher educational institution (PHEI) at franchise status from university abroad; d) private higher educational institution (PHEI) at non-university status.

[17] Third Outline Perspective Plan (OPP3) 2001-2010 is the second phase of the nation's journey to realize Vision 2020 that Malaysia embarked upon in 1991. The Second Outline Perspective Plan (OPP2), 1991-2000 provided the platform for the implementation of the National Development Policy (NDP) aiming at achieving balanced development, after the launching of the New Economic Policy in 1971 (EPU, 2001).

On the same note, the government clearly signifies that,

> "... the private sector will continue to be the engine of growth in the knowledge-based economy, while the public sector will provide the enabling and supporting environment. The social and equity objectives will remain crucial elements in this new stage of economic development with the added responsibility of narrowing the knowledge gap among various income groups, between urban and rural communities and across regions" (Economic Planning Unit, 2001: 120).

The development of private institutions in Malaysia helps to alleviate the financial burden on the government as the sole provider of education, while at the same time improving access to education, especially higher education to the populace (Abd Karim, 1992). In explaining the expansion of private education, James (1993) identifies three factors:

1. excess demand (limited access to public schooling);
2. differentiated demand (due to different tastes and values);
3. non-profit supply (participation by non-government organizations).

These factors also contribute to the development of private education in Malaysia (Othman, 1993; MoE, 2003b). Analysts also point out that all ethnic groups registered an increase in household income during 1995-2000, with an average growth rate of 5.2% per annum (EPU, 2001). The increase in the household income encourages a greater "excess demand" and "differentiated demand and non-profit supply stemming" in Malaysia when parents have the means to choose private schools for many different reasons, such as preferences in:

- particular culture or religion (for instance the private Chinese independent schools and private religious schools),

- certain school environment,
- better instructional services with better facilities,
- location or distance, or
- status attached to certain schools.

Othman (1993) also added four phenomena that led the government to promote the privatization policy and further enhance the expansion of private educational institutions in Malaysia: i) deficit in the projected budget; ii) non-satisfaction toward the public sector services; iii) management inefficiency due to "red-tape" and "bureaucracy"; and iv) the large size of public sector as compared to private sector.

In general, private schools in Malaysia accommodate parents in four market niches (Abd. Karim, 1992, MoE, 2001):

1. More affluent parents, predominantly living in urban areas, who prefer private schools over national schools;
2. The Chinese community, who managed and financed the Chinese independent secondary schools before 1960, requires Mandarin as the medium of instruction;
3. Various Islamic bodies and state governments, which have established religious secondary schools, commonly known as *Sekolah Menengah Agama Rakyat* (SMAR) and *Sekolah Menengah Agama Negeri* (SMAN);
4. Expatriate community members, such as investors, businessmen, and professionals. (The MoE has facilitated the setting up of international schools, which are accustomed to the British, American, Japanese, German, Taiwanese,

Indonesian and Saudi Arabian school systems, wherein students can continue their similar curricula in Malaysia).

Table 1.4 shows the phases of evolution in private education in Malaysia. In the 1950's, the private schools were informal institutions. Private education was considered to be "third-class" education (Abd. Karim, 1992) since it was the alternative program for students who failed to gain admission to the government schools. Over the next two decades, however, a new outlook of private schools began to emerge, particularly in the mid-1980. There was a considerable amount of collaboration and investment between the private schools and large corporations between the 1980's and 1990's. Since then, private education has developed into an industry of its own. The enrollment rate in the private schools continues to increase at the secondary level and particularly at the tertiary level (Loke, et al, 1999).

The government, in recognizing its collaboration with the private sector, enacted six new education legislations between 1995 and 1997, which apparently led the actual tidal wave of the private education reforms in Malaysia (Mohamad, 2002; MoE, 2003b). These legislations cover pre-school to higher education in both public and private educational institutions. They include the following:

1. the Education Act, 1996, which replaced the Education Act 1961;
2. the Private Higher Educational Institutions Act, 1996;
3. the Universities and University Colleges Act (as amended),1996;
4. the National Accreditation Board Act, 1996;
5. the National Higher Education Council Act, 1996; and

6. the National Higher Education Fund Board Act, 1997.

These Acts have been seen as vital to the boost of private institutions' development, specifically in tertiary education in Malaysia. In addition to this recent legislation, the growth of the private education sector is associated with the government's pragmatic approach toward human capital investment (MoE, 2002). Incentives include providing privileged status in terms of a variety of types of taxation to the operators of private schools as well as the granting of study loans to Malaysian students for tertiary education in private colleges in Malaysia (MoE, 2003b).

Table 1.4: Phases of evolution in private education

The evolution of private education beginning in the 1950s in Malaysia is displayed systematically in the following table:

1950's -1960's	1970's	1980's	1990's	1996-1999	2000's
▪ Private education before the 1960s was provided for on the initiative of entrepreneurs (MoE, 2003b) ▪ Private schools were considered as *institusi pendidikan kelas tiga* (third-class education)[18] because they were associated with students who failed in the national examinations and thus could not proceed to other levels, ranging from *Unit Penilaian Sekolah Rendah* conducted in year sixth (Grade 6) to *Sijil Tinggi Pelajaran* conducted in upper secondary Form (GCE 'A'Level) in government schools ▪ They were alternatives for students who failed to gain admission to the government schools ▪ Options for drop-outs to acquire trade skills and some basic certificates qualifications ▪ Provision is based on the Initiative of entrepreneurs	▪ Private schools continue to be associated with third class education ▪ Tutorial centers and private colleges prepared students for external examinations to acquire semi-professional and professional bodies' qualifications	▪ The image of private schools gradually improved and were associated with better quality, better facilities and more modern schools ▪ Since mid-1980s, private education has developed into an industry of its own with considerable investments from large corporations (Abd Karim, 1992) ▪ Late 1980s, there is a considerable investment in education from private sector ▪ There is significant change to the era of private institutions where private schools and colleges are no longer catering to school failures ▪ Private institutions strive to provide quality secondary education	▪ The proportion of secondary students in private schools continue to soar given the projected expansion of private education especially at the tertiary level (Loke et al, 1999)	▪ Private education received acceptance from the Government as part of the national education system and it is well governed by various legislations, especially those enacted in the year 1996 ▪ Post-legislation era led to a significant growth in the private institutions: pre-school, elementary, secondary and tertiary levels	▪ More acceptance by the public ▪ Internationally recognized by countries which now send students to attend Malaysia's private universities

[18] Abd. Karim (1992: 4)

▪ The governing law on the operation of private educational institutions, The Education Act of 1961 was passed. This Act requires that private educational institutions are registered. This is to ensure control of private institutions would be under MoE (Bajunid, 2002) ▪ The function of private education changed dramatically when private educational institutions were established and registered. There was demand from the public for the provision of private education as a supplementary pathway for higher education opportunities.	▪ Providers of tertiary education offer a wide selection of market-driven courses available to high achieving students. ▪ Alternatives to government universities ▪ Private schools were considered as a better quality 'commercial product' as shown by double or multiple times more tuition fees when compared to public schools	▪ Economic downturn in 1997 resulted in a lesser number of Malaysians pursuing higher education overseas in addition to the growth of Information Communication Technology (ICT) and globalization thus, driving the growth of local private institutions ▪ The efforts of the private institutions represent a direct response to the needs of the labor market for scientific and technologically oriented manpower	▪ The first private Malaysian university, namely *Universiti Telekom* (now known as Multimedia University), was established in 1997, and in 1998, Monash University of Australia was invited by the Malaysian Government to set up its first foreign branch campus in Malaysia.

Source: Private Education Division of MoE (2003b) and Loke et al (1999); Bajunid (2002); Abd. Karim (1992)

Education and training institutions expanded rapidly to cater to this increasing demand for educated and skilled manpower. Thus, the private sector also became a major provider of education and training, mainly as a result of expansion due to the need for higher education (EPU, 2001). Additionally, the post-legislation era (after 1996) has brought significant benefits in a number of ways when compared to the pre-legislation era (before year 1996). Not only has it had an impact on the liberalization and privatization of education, particularly at the tertiary level, but it has also resulted in the setting up of a quality assurance agency on the part of government to guarantee that quality in private education is comparable to government assisted education. The availability of study loans for attending Malaysian private colleges also provides greater access to higher education. At the same time, private school operators who are found in violation of laws may be fined and jailed.

The post-legislation era has also greatly enhanced the private education sector by attracting more corporate presence and corporate ownership of institutions; a greater acceptance by all races; the establishment of private universities and branch campuses of foreign universities; and the offer of full degree programs conducted by selected private colleges (MoE, 2003b). This has a further impact on the level of confidence not only in the growth of tertiary education in the private sector, but also at the primary and secondary education levels among the parents and students.

While in doing so, through its various action plans, Malaysia strives to achieve the country's aspiration of becoming an educational center of academic excellence in the twenty-first century (Mohamad, 2002). In ensuring that no unscrupulous institutions are advertising or offering education of low standards and inappropriate activities, the government supervises private education ranging from the kindergarten level to tertiary education. The regulatory functions of relevant authorities are also strengthened and are reviewed regularly to protect consumers' interests and ensure the development of a progressive private education sector (EPU, 2001:161).

In line with this recent phenomenon of increasing privately sponsored education, the following instances clearly illustrate the maturity of private education in Malaysia:

1. the upgrading of the Private Education Division of the Ministry of Education to become a full Department in 1995;
2. the establishment of *Lembaga Akreditasi Negara* (National Accreditation Board) in 1995, which is the government's quality assurance agency to monitor and maintain the standard and enhance the quality of Malaysian higher private education;
3. the birth of the Malaysian Association of Private Colleges and Universities (MAPCU);
4. the aggressive approach of the government to promote Malaysian private education globally since year 2000;

5. the public listing of private colleges in the Malaysian Stock Exchange;
6. the availability of Malaysia's well-written publications on private education, such as the Malaysian Education Guide and its formal website: www.studymalaysia.com in 2003;
7. the weekly feature of private education in all major newspapers in 2003; and
8. the high profile education fairs held annually since year 2000 to attract students to the nation's economic development hub (MoE, 2003b).

I.5. Proposed research

This dissertation is a comparative study of the costs of government and private secondary schools in Malaysia. While educational privatization has expanded in Malaysia in recent years, there is no information on comparative costs between government and private schools so far in Malaysia. Further, this study draws on detailed cost information for different types of government and private urban schools. It considers both costs incurred by educational institutions and by households. It is expected that this study will provide the cost information to inform issues regarding the relative cost-effectiveness of government and private schooling, and the inequity implications of school privatizing, thus contributing to the empirical and analytical bases for government policy regarding privatization. Previous research on the efficiency and equity implications of educational privatization do not incorporate cost analysis.

I.6. Objective of study

Consequently, the objective of this study is principally to estimate the costs of secondary schooling, namely: *capital costs* and *recurrent expenditures* of government and private schools, and *private resources* required to supplement school expenses in both public and private schools. These resources may include *direct costs*, *indirect costs* and additional *household spending* required for students to attend the government schools and the private schools in Malaysia. Also, comparisons will be made to observe the costs and the level of economic burden on Malaysian families. In addition, this study will examine costs for different types of secondary schools. Key factors that account for cost differences among secondary schools will also be identified.

I.7. Significance of study

In a nutshell, the significance of this study is twofold:

1. There has been no previous cost study comparing government and private schools in Malaysia. Thus, this study is perceived to be of significant value not only to the government, but also to administrators and parents/families of students in both government and private secondary schools.
2. Data using field-study methodology will be collected to compare the costs of government and private schools in Malaysia for the first time.

This study could improve the allocation of resources to government schools, as well as private schools by providing information on costs for policymakers and planners. It is hoped that this study will contribute valuable insights that influence educational policy regarding the allocation of resources for education in Malaysia. Additionally, this research will also lead to a systematic recognition of the need for on-going, research-based information as the appropriate, scientifically verifiable basis for better policy-relevant information to guide and evaluate educational costs. More, this study would address the challenge of providing equitable distribution of educational opportunities, at least at the secondary level, for all students in Malaysia.

Studies that have focused on cost analysis comparing the government and private schools raise concerns that are very relevant to consider. These are whether private schools exacerbate inequities in the provision of education and whether private schools exacerbate socio-economic and racial segregation. Furthermore, studies that compare the costs of government schools to the costs of private schools are sorely lacking; there have, in point of fact, been none in Malaysia prior to this study.

Hence, this study's conclusions and recommendations may well prove invaluable in determining whether Malaysia should follow the example of other Southeast Asia countries that have already extensively privatized education or whether Malaysia would benefit most from careful consideration of its unique resources and needs; leading to ensuring the allocation of appropriate funding for efficient and equitable educational services in order to promote access to quality education for all social groups. Also, the question is how to coordinate public and private resources to improve universal access of

schooling, expand compulsory education and deal with issues like choice and efficiency in delivering educational services for national development.

I.8. Organization of the dissertation

The remainder of this dissertation has five chapters. Chapter Two presents the review of the literature. Chapter Three describes the key research questions, analytical framework, and research methodology. Chapter Four presents the results of the comparative analysis of the costs of government and private secondary schools in Malaysia. Chapter Five summarizes the major findings of the study, addresses policy implications, and indicates limitations and future research needs.

I.9. Definition of terms

Government schools

Government schools are also known as national schools. These schools are established, funded and managed by the government. In national schools, the medium of instruction is the Malay language and English is a compulsory subject. The educational institution offers education ranging from pre-school to higher education as follows:

1. Pre-school education for two years, which commences at four years of age[19];
2. Primary education for six years, which commences at seven years of age;

[19] As documented in the educational policy in 1999, MoE institutionalized pre-school education for all children between the ages of four to six years old according to prescribed guidelines in the curriculum provided by the MoE.

3. Lower secondary school for three years, which commences at thirteen years or fourteen years of age;
4. Upper secondary education for two years, which commences at sixteen years or seventeen years of age;
5. Post-secondary education for 1 to 1.5 years, which commences at eighteen years of age;
6. Higher education, which is comprised of undergraduate studies for 3 to 5 years and postgraduate studies for 1 to 5 years.

Government-aided schools

Government aided schools are schools in receipt of Grant-in-Aid and Capital Grant from the government.

National-type school

At the primary level, national-type schools refer to school that use Chinese and Tamil as the medium of instructions. In these schools, Malay and English languages are compulsory subjects. National-type schools are also known as the ethnic schools to service the needs of the multi-ethnic populace.

At the secondary level, there exists only one type of national secondary school. It is the aim of the government " to train employable and loyal Malayan citizens and that one of its primary functions is to foster and encourage the cultures and languages of the Malayan community" (Report of the Education Committee 1956, 1966:12). By having only one type of national secondary school, students are allowed to have common final examination, at the same time, particular attention is given to various languages and cultures in the curriculum whenever it applies to.

Private schools

Private schools are schools that receive no financial-aid from the government.

Free education

Free education is tuition-free for all eligible Malaysian citizens. In addition to being tuition-free, government schools also provide textbooks without charge, based on eligible parents' or guardians' income and the number of children attending school. However, for non-eligible students, e.g. a child from foreign country, a minimum amount of fees is required. The requisite fees are RM 120 per child in a primary school level and RM 240 per child in a secondary school level (MoE, 2000).

Table 1.5: Guidelines for free textbooks eligibility in national primary, secondary, technical and vocational schools

Parents or guardians' income	**Eligibility**
Less than RM700	All children are eligible for free textbooks
RM 700-RM 800	Parents pay for one child textbooks, while other children are eligible for free textbooks
RM 801-RM 900	Parents pay for two children textbooks, while other children are eligible for free textbooks
RM 901-RM 1000	Parents pay for three children's textbooks, while other children are eligible for free textbooks

Source: MoE (2002:5-3)

Privatization

According to MoE (2003b: 1),[20] privatization refers to "education provided to students by private educational institutions and it is unaided by the government (2003:1)."

Standard education program

A standard educational program adheres to the academic national curriculum, such as the regular, religious, and special education. In contrast, a non-standard educational program, such as the vocational schools, technical schools, tuition centers, language centers, computer learning centers, commercial skill training centers, and correspondence schools, follows a non-academic national curriculum.

[20] Private Education Division, MoE (2003b). Available at http://www.studymalaysia.com/is/education12.shtml

CHAPTER II--LITERATURE REVIEW

Introduction

This chapter reviews the literature comparing the costs of government and private secondary schools focusing on Southeast Asian countries, particularly Malaysia. It is divided into three sections: the *first* and *second* sections deal with the conceptual issues and methodological issues in the analyses of costs of government and private school. The *third* section explores findings related to costs comparisons between government and private schools utilizing evidence from Southeast Asian countries.

II.1. Conceptual issues

Based on published studies, it has been found that there are considerable conceptual, as well as methodological flaws in previous analyses of costs of government and private schools in developing countries (Tsang, 2002). Tsang refers to the costs of education as the resources utilized in the education production process; they include not only government expenditure on education, but also household spending on education and the forgone opportunities of schooling (such as gainful employment). For many developing countries, in fact, generally undocumented household educational spending and contributions make up a significant part of the financing of children's education (Tan and Paqueo, 1989; Tsang and Taoklam, 1992; Tsang, 1994).

In comparing costs of government and private schools at the school level, as shown in Figure 2.1, costs can be divided into two groups: institutional costs and private

resources devoted to education (Tsang, 2002). One group is *institutional costs* - costs incurred by the school in its production of educational services. As such, they are divided into two categories for accounting purposes:

1. *Recurrent costs* (i.e. costs of inputs on an annual basis) consist of the following costs:
    a. school personnel (e.g. salaries, employment benefits, and supplementary benefits paid to teachers, school administrators, and other school staff); and
    b. non-personnel items (e.g. costs of instructional materials, teaching aids and school supplies, minor and regular repair and maintenance, utilities and student welfare).
2. *Capital costs* (i.e. costs of inputs, which last for more than one year) include costs for buildings, equipment, and land.

The second group, *private resources* for education, can be divided into three categories:

1. *Direct private costs* entail household educational expenditures related to a child's schooling, including both tuition spending and non-tuition spending (e.g. other than school fees, textbooks and supplementary study guides, uniforms, writing supplies, school bags, transportation and boarding).
2. *Household contributions* refer to donations in cash and/or in kind from parents, individuals, or community organizations to a school.
3. *Indirect private costs* refer to the economic value of the forgone opportunities of schooling, such as forgone earnings associated with time spent at school. Moreover, with respect to forgone earnings, these often-undocumented costs

> are expected to rise as the child's age increases and, accordingly, this has implications for the cost of attending school, independently of public and private programs that promote tuition-free schooling (King and Lillard, 1987).

It is worth noting that in many countries, government educational spending finances almost all institutional costs of government schools. This government spending is also typically a major component for government schools along with fee-related spending by households, which is often an indispensable component for private schools, as well as private corporate contributions to these schools. Since total costs include non-fee related direct private costs, household contributions, and indirect private costs, as well as the sum of institutional costs, it is clear that the institutional costs alone do not represent the total cost of providing educational services at the school level.

II.2. Methodological issues

Several methodological issues involved in examining costs studies of government and private schools, all of which present enormous challenges in conducting field research, are discussed next.

First of all, according to Tsang (2002), good and relevant data simply may not be accessible. Even with the availability of data, the quality of data or information should be handled with care, for data might be of low quality or can be based on rough estimates. Among the challenges faced in the study of both government and private schools, researchers may face underestimation of costs in various circumstances. In many cases, these challenges result from difficulties in obtaining reliable, verifiable information. Some of the difficulties in accessing data on both government and private schools are in

obtaining the school level information on institutional costs. As a result, using total government spending on public education, for example, to estimate per student cost of public schooling may lead to unreliable cost estimates and, hence, could lead to underestimation of the costs.

Second, data on educational costs at the school level are needed to compare the costs of government and private schools. For that reason, it is important to include all major costs of schooling (Tsang and Taoklam, 1992). Failure to obtain information on all relevant costs may lead to underestimating costs. Needless to say, omitting these costs would underestimate the total costs, particularly of private schools relative to government schools. Further, if private resources are not taken into consideration, costs of private schools would be underestimated and their relative efficiency would be overestimated.

Third, researchers should avoid using only certain data, like school revenue data. For example, using school revenue data instead of school cost data could lead to a significant measurement error (Tsang, 2002). Tsang also cautioned researchers that school income may not be equal to school expenditures and school income does not include other school costs, such as non-fee direct private costs (DPC), donations in kind, and indirect private costs. Hence, the exclusive use of school income data provided by school administrators themselves would produce rough cost estimation and risk underestimating total educational costs or ignoring resources devoted to schooling or excluding education inputs donated by parents/community sources.

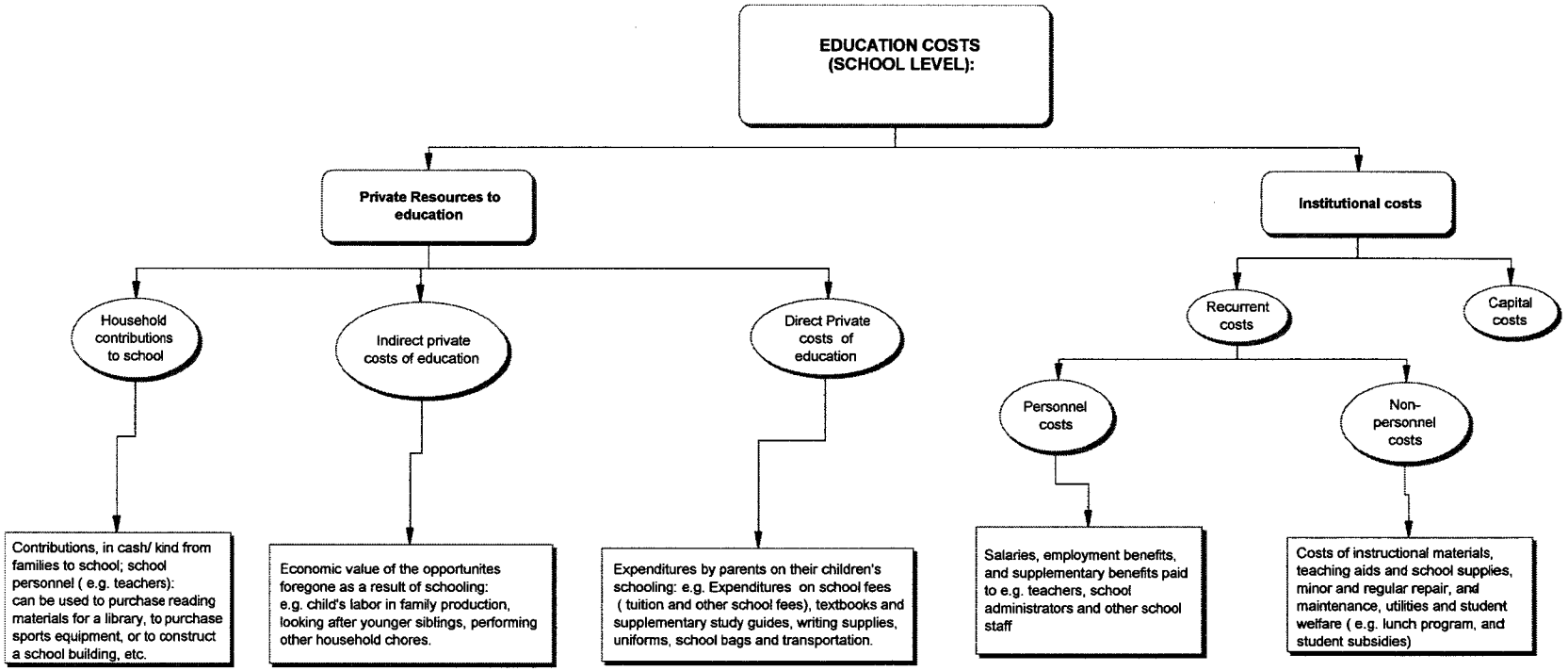
Fourth, indirect private costs of education are often difficult to estimate. Assumptions have to be made about the economic value of the work opportunities

forgone[21] as a result of attending school. Also, for a variety of reasons, many costs studies consider recurrent costs of schooling while less attention is given to the capital costs of schooling and private resources of schooling. It appears that failure to consider capital costs and private resources can significantly bias the relative cost ratio between government schools and private schools (Tsang and Taoklam, 1992).

Fifth, the way school revenue from households is utilized could have an impact on school output. According to Tsang, it is relevant to analyze the pattern of resource utilization at school. This is because in many developing countries, direct private costs have strong implications for educational quality and equity (Tsang, 2002:115). In some countries, they represent the major source of funding for education inputs such as textbooks and other learning materials. Further, they also mean additional spending for some households, and therefore increase the economic burden on them. This, in turn, could adversely affect school attendance, particularly impacting those students from poor and rural backgrounds.

[21] Tsang and Kidchanapanish (1992:182), defines opportunity cost as the number of hours a day that parents would have liked the children to help them if the children had not been in school. They set the monetary value of one hour of a Grade 6 student's time at 25% of the adult minimum wage. On the other hand, conducting research in Cambodia, Bray (1998:63) argued for the use of monetary figures in calculating the opportunity cost incurred, instead referring to opportunity costs as the hours that children spend in or traveling to and from school plus the children's labor market (value of labor increases with age) and the nature of home production.

Figure 2.1: Education costs



Sources:
Tsang, M.C. & Taoklam, W. (1992);
Tsang, M.C. (2002b)

Sixth, generalizing and drawing conclusions from studies of government versus private schools should be done properly and with caution (Tsang and Kidchanapanish, 1992; Tsang, 1995). As emphasized by Tsang and Taoklam (1992), in making any cost analysis, one should: a) clarify the nature of the schools; b) consider differences in urban/rural settings; and c) perform appropriate comparisons. Further, Lockheed and Jimenez (1994) have pointed out that better information, particularly regarding the social and private costs of different kinds of schools, needs to be gathered. It would be useful to compare results across the entire spectrum of students rather than just for the average student. They found that in many studies to date, the students compared were only secondary school students. However, in Latin America and East Asia, for example, the critical level for the future will be universities, which entail the highest cost components in many national budgets for public education. In Africa and the Indian subcontinent, the issue of the relative costs (and merits) of public versus private education is also being discussed regarding the primary school level. Furthermore, private schooling has different definitions and interpretations in various studies as shown in Table 2.1.

The use of aggregated, as opposed to disaggregated data[22], is notable in many studies. One factor that may lead to the uses of aggregated data is data limitations. Therefore, state/district level information is preferred, as opposed to school level information. Other factors include the multidimensional nature of educational output and measurement problems that may lead to the use of aggregated data. Therefore, using "output" measures, such as student enrollment, has been preferred in numerous earlier

[22] The ingredients approach is a disaggregated approach based on individual inputs or resources (ingredients) used in the production of an educational program (Levin, 1983).

studies (Tsang, 1988). Unlike disaggregated data, aggregated data is less costly to collect and involves less time to obtain costs estimates.

On the other hand, findings on relative costs on the basis of highly aggregated data can be crude enough to cause misleading policy implications (Tsang, 1995), since there are different types of schools operating under different social contexts.

Thus, Tsang (1995) suggested that researchers should use disaggregated data where similar social contexts are compared between government and private schools. Moreover, costs comparisons should not assume that government schools and private schools are two internally homogenous systems, as this will not lead to a meaningful evaluation of the relative efficiency of the two types of schools. Also, using an aggregated costs approach tends to result in bias problems.

Table 2.1: Privately operated schools in nine countries (percent of total enrollment)

Country	Primary	Secondary	Comments
Cambodia	<1	<1	Private schooling was outlawed until the early 1990s. Now a few schools serve rich families or provide a curriculum for minority religious and ethnic groups.
China	<1	<1	Most community-run *minban* schools have been taken over by the state. Though community-financed, *minban* teachers remain common. However, recent years have seen the establishment of profit-making private schools. The private school sector is small, but it is highly significant and growing fast.
Indonesia	19	71	The government gives substantial subsidies to private schools. Many of them are *madrasahs* and *pesantrens* run by Islamic organizations while Christian bodies run others. The number of elite private schools is small but increasing.
Lao PDR	2	1	Private schools were outlawed in 1975 but have been permitted again since 1990. Some schools are commercial ventures but others are non-commercial and are run by groups such as the Vietnamese and Chinese Associations.
Mongolia	0	0	Private education has been permitted since 1991, but the main initial growth has been at the university, rather than primary or secondary levels.
Myanmar	3	31[a]	Some communities, especially in rural areas, operate affiliated schools to meet demands that cannot be met by state schools. In some definitions, however, these would be called semi-public rather than private schools.
Philippines	6	39	The Philippines has a long tradition of private schooling. Churches run most private schools. The majority are low-cost enterprises, though some private schools are high-cost ventures that aim to serve the economic elite.
Thailand	4	12	Enrollments in private schools have declined over the past two decades as many low-quality institutions have closed. The remaining institutions are mostly in urban and suburban areas. These instructions chiefly serve middle-and high-income families. Many private schools receive subsidies from the government.
Vietnam	<1	3	The term private includes full-private, semi-public, and community schools.

[a.] *Includes middle schools (grades 5-8);*
Source: Bray (1996: 12)

Landon (1999:329), in his study of education costs and institutional structures, also argued that employing a disaggregated costs approach would be more beneficial. For example, it would allow one to infer whether different regimes, with similar total education costs, are associated with different allocations of spending across the sub-components of total cost, such as teacher salaries, teacher-pupil ratios, administration costs, etc. Moreover, using a disaggregated costs approach would indicate the level of government best able to control each type of education cost, as well as clarify why education spending differs across regimes with different institutional structures. It may also improve the understanding of the factors used to determine overall education spending.

Often, studies deal with data that are not disaggregated into costs[23] for different types of government schools and private schools and for urban and rural schools; this would cause unreliable cost estimates to occur and thus, provide rather inaccurate estimates and may lead to improper conclusions with serious policy implications. Thus, in view of these problems, Tsang (2002) emphasizes the need for proper unit cost measurement based on appropriate procedures, besides the decision context itself.

II.3. Evidence from Southeast Asia experience

Of late, encouraging developments have taken place in the thoroughness of studies on the relative costs as well as relative cost-effectiveness of government and private schools (for example, Tsang and Taoklam, 1992; Jimenez and Lockheed, 1995;

[23] One should also be aware of comparing public-private on a unit basis, especially in terms of costs per student.

Mc Ewan and Carnoy, 2000; Tsang 1995; 2002). Empirical evidence from several published studies reveals some differences and patterns worth noting in understanding government and private school costs comparison. The notion of private schools' advantages (e.g. Jimenez, Lockheed and Paqueo, 1991, Jimenez and Lockheed, 1995) can be quite misleading without a proper calculation of government and private schools costs. It is indeed important to examine the private resources available to private schools that appear to have been significant compared to public educational spending and to document with current observations that these resources are very different for public and private schools (Tsang, 2002:116).

Tsang's (2002) study as shown in Table 2.2[24] documents that the magnitude of private resources[25] (i.e. in the direct private costs) is huge, especially for primary schools in Cambodia, and at all levels of schools in Vietnam. Large variations exist for government and private schools in these countries. For example, direct private costs as a percentage of public education expenditures range from 10% in Indonesia to 246% in Cambodia at the primary level, whereas at the secondary level, the range is from 74% in the Philippines to an average of 235% in Vietnam.

Studies also show the importance of looking at the different types of government and private schools within a country for proper comparison. Tsang (2002) reported the total direct private costs of private primary schools averaged 4.7 times that of government

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[24] Focusing on the Southeast Asia countries

[25] Refer to Table 2.2: magnitude of private resources to public schooling in developing countries. Tsang (2002) uses two measures to assess the magnitude of private resources:
a) Private resources as a percentage of public recurrent educational spending; and
b) Private resources as a percentage of total public educational spending (sum of recurrent and capital spending).

primary schools in 1987 in Thailand. He highlighted the significance of distinguishing between the different types of government schools, especially between rural and urban ones. In the case of non-tuition household educational spending among different types of government schools in Thailand, it is reported that the range varies from 601 bahts in ONPEC schools (government schools in rural areas) to 1227 bahts in Bangkok schools (urban government schools in the national capital) and 1213 bahts in Municipal schools (urban government schools in other municipal areas, specifically Tsang and Kidchanapanish, 1992). It is also worth noting that even though there are many costs studies published, most of these studies are looking primarily into the direct private costs rather than private contributions and indirect private costs, which can be significant.

In Malaysia, similar variations were found by school type and location (Ministry of Education, 1996:58). In the case of total government expenditure[26] per student at the primary level, among different types of government schools in Malaysia, it is reported that in the urban areas, the range varies from RM 565 in National-Type Chinese Primary schools to RM 699 in National-Type Tamil Primary schools, while in the rural areas, it varies from RM 794 in National-Type Chinese Primary schools to RM 861 in National-Type Tamil Primary schools.

Further empirical evidence also reveals that private resources are the major source of support for some quality-related educational inputs of both government and private schools and these affect the demand for education, especially for children from

[26] Total government expenditure includes management expenditure (which includes salaries paid to the headmasters, principals, senior assistants and supporting staff), teaching and learning expenditures (includes salary of teachers, laboratory assistants, expenses on books, teaching aids, teaching equipment, stationery, examination expenses, expenditure on student motivation activities and extra classes) and welfare expenditure (includes scholarships, subsidies on examination fees, school uniforms, transportation, medical services, student pocket money, insurance and similar expenses).

disadvantaged backgrounds (Tsang, 1995). A study on government and private schools' need for students to provide for their own individual private resources required for school attendance for education shows the preponderance of private resources exacerbates the inequality of educational resources and inequitable educational financing with regard to different socioeconomic groups (Tsang and Kidchanapanish, 1992:197). This can be especially true when taking into consideration Schultz's (1963:5) remark as cited in Thomas (1990), in which he indicates that the majority of studies of both government and private schools costs also show that most of the economic burden of providing supplementary materials are borne by students and their parents.

In another study, Tsang and Taoklam (1992), in their analysis using a national survey of 301 primary schools in Thailand and 2075 parents of grade 6 students, found that per student recurrent cost vary significantly among the three types of government schools and private schools, and among government schools under different administrations. Compared to government schools, private schools spent only 1663 baht in recurrent cost per student, i.e. 47% of the amount that government schools spent on recurrent costs per student. Between urban and rural ONPEC schools, the urban ONPEC schools spent more than the rural ONPEC schools by 26% on recurrent costs per student; however, municipal schools had the lowest recurrent costs per student, i.e. 2208 baht, when compared to the other three types of government schools.

They also found that private resources constitute a very significant proportion of the total cost of schooling for families of both government and private school students. Further, from Table 2.3 for instance, one can conclude that in 1987, on the average,

private resources accounted for 23% of the total cost for government schools and 76% of the total cost for private schools.

A review of the literature prior to this current research study indicates clearly that private resources represent a sizable portion of the total resources (sum of public and private resources) devoted to educational production. They are the major sources of support for important inputs to education, such as textbooks and other learning materials. Cost analysis, without considering private resources, will clearly underestimate the total costs of schooling for all types of schools and will not only underestimate the costs of private schools relative to government schools, but will also overestimate the efficiency of private schools relative to government schools. Generally, private resources are found to be highly significant when comparing private to public educational expenditures at both the primary and secondary levels (Tsang, 1995).

Tsang and Taoklam (1992) further found that the magnitude of private resources implies that the private costs of schooling can be burdensome for some parents, especially parents in rural areas. Reducing such economic burdens on individuals and families could increase the demand for education in rural areas. Typically, parents who earn more spend more on their children's education. Because of their more privileged socioeconomic status, private school parents/families are capable of sustaining a much higher economic burden (Tsang and Kidchanapanish, 1992), thus perpetuating disparities in educational opportunities possible for rural, as well as urban youth. A significant source of national talent, namely rural youth, is thus in danger of being increasingly unable to contribute to the national economic development, as privatization of education increases.

Table 2.2: Magnitude of private resources to public schooling in developing countries

Country	Measure (year)	Private resources by education level	Sources
South East Asia			
Cambodia	DPC as % of government educational expenditure (1997)	246% in primary schools	Computed from Bray (1999, P. 126-127)
Indonesia	DPC as % of public educational expd. (1989)	10% at primary level	Computed from King (1994)*
Philippines	DPC as % of public educational expd. (1994)	44% at the primary level	Computed from Schwartz (1995)*
		74% at the secondary level	
Myanmar	DPC as % of public educational expenditure (1994)	43% at the primary level	Computed from Evans and Rorris (1994)*
Thailand	DPC as % of per-student recurrent cost (1987)	20% in government primary sch.	Computed from Tsang and Taoklam (1992)
	Household contribution as % of per-student recurrent cost (1987)	4% in government primary sch.	Computed from Tsang and Taoklam (1992)
		14% in government primary sch.	Computed from Tsang and Taoklam (1992)
	Indirect private cost as % of per-student recurrent cost (1987)		
	Total private cost as % of per-student recurrent cost (1987)	38% in government primary sch.	Computed from Tsang and Taoklam (1992)
Vietnam	DPC as % of public educational expenditure (1993)	110% at the primary level, 210% at lower-secondary level, and 260% at upper-secondary level	Computed from World Bank (1995)*
	DPC as % of public educational expd. (1994)	95% at lower-secondary level, 106% at upper-secondary level	Computed from World Bank (1997)

Sources: Tsang (2002:117)-Only 'Asia countries' are mentioned here.

Notes: DPC is the Direct Private Cost. HEE is the Household Educational Expenditure.

Table 2.3: Private resources to government and private primary schools in Thailand, 1987 (per grade 6 student)

	Government Schools				
	ONPEC Schools (1)	Bangkok Schools (2)	Municipal Schools (3)	All Govt Schools (4)	Private Schools (5)
Direct private costs *					
Non-tuition costs:					
Instruction related **	257	419	411	280	625
Non-Instruction ***	343	815	784	412	1013
Subtotal	600	1234	1195	692	1638
Tuition cost	0	0	0	0	1417
Total cost	600	1234	1195	692	3055
Household contribution @	155	181	87	153	62
Indirect private cost #	536	286	461	508	451
Total private resources	1291	1701	1743	1353	3568

Notes:

* In baht per student per school year

** Consists of expenditures on textbooks, workbooks and writing supplies.

*** Consists of expenditures on uniform, school bag, transportation, shoes and sportwear, and school fees on sport activities and other school events.

@ In baht per household per school year, consists of contributions in cash and in kind, to other school and teachers

\# In baht per student per school year, equal to the economic value of foregone child labor

Sources: Tsang and Taoklam, 1992:364.

In Malaysia, a costs study of government primary and secondary schools conducted by the Ministry of Education in 1996 has been regarded as an important step towards informing government decisions about how best to promote the efficient use of the MoE's limited resources, given that there had not been a detailed study in the past regarding the costs of education. However, this earlier study (1996) involved only government schools, and no comparisons were made with any private school counterparts. This MoE survey was done on 980 families, aiming to identify expenditures in support of their children's education solely in government schools.

Table 2.4: Expenditure incurred by parents by level of schooling and income (RM) for government schools only, Malaysia, 1996

	Income Level (RM)	No. of Families	Primary					Lower Secondary					Upper Secondary				
			No. of Students	T & L	W	O	Total	No. of Students	T & L	W	O	Total	No. of Students	T & L	W	O	Total
Low Income	<500	206	254					203					151				
	501-1000	294	322	233.1	557.7	22.8	814	188	236.6	810.7	36.2	1084	250	626	947	36	1610
	1001-1500	114	127					110					79				
Middle Income	1501-2000	84	73					83					66				
	2001-2500	41	42					43					29				
	2501-3000	50	39	388.5	756.2	62.2	1207	37	707.7	991.2	97.3	1796	42	1432	1332	99	2863
	3001-3500	29	38					28					14				
	3501-4000	38	39					29					27				
High Income	4001-4501	10	8					7					8				
	4501-5000	36	43	1011.3	1177.8	162.8	2352	41	1295.9	1512.2	214.8	3023	20	2590	1668	154	4412
	>5000	78	64					71					53				
		980	1049					840					739				

Notes: T & L - Teaching & Learning
W - Welfare
O - Others

Sources: MoE, Malaysia (1996)

Table 2.4 shows the three groups of household income level: namely, those households with less than RM 1,500 as the low-income group; RM 1,501-RM 4,000 as the middle-income group; and more than RM 4,000 as the high-income group, based on the standard of living in Malaysia in the year 2000. *First*, at the primary level, households in the low-income group reported spending in 1996 an average of RM 814 per child compared to the government's 1994 expenditure of RM 734 per child.[27] The middle-income group spent RM 1207 per child, and the high-income group spent RM 2,352 per child. *Second*, at the lower secondary level, the 1996 household expenditures ranged from RM 1084 to RM 3023, compared to the government's 1994 expenditure of RM 1071 per student. *Third*, for the upper secondary students, the household expenditures in 1996 ranged from RM 1610 to RM 4412, while the 1994 estimates of government expenditures were RM 1680 in the Arts stream and RM 2338 in the Science stream. Clearly, the expenditure level, whether by government or individual families, increases as the level of schooling increases. This could be a factor affecting the school-learning rate at the secondary level and may influence the school-leaving rate of other levels from Kindergarten through secondary school levels (K-12).

It would be interesting and more meaningful, though, to compare educational expenditures based on the proportion of total household income rather than merely absolute amounts in order to observe the level of economic burden of schooling[28] by type

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[27] A similar year, i.e. 1996 government spending per child provides more meaningful figures to be used when making these comparisons.

[28] Economic burden of schooling is defined by household educational spending as percentage of total household income.

of school for students of different backgrounds. The out-of-pocket costs to a family for keeping children in school are substantial in Malaysia.

Young, et. al (1980) argue that these costs tend to increase with the child's educational level and place a greater burden upon poor households. In 1974, the mean out-of-pocket cost to all Malaysian households with incomes in the first income quintile (lowest 20%) for those who had at least one child in secondary school averaged 13% of the household income for school expenditures.

Using Malaysian Family Life Survey (MFLS) data, a study by Abd Rahaman (1991) documents the household educational expenses per child as a percentage of household income by the child's level of education at the primary, secondary, and post secondary and residential stratum in both the urban and rural areas. He uses the MFLS-II data taken from the Child Care and Educational Expenses section of the Female Life History questionnaire (MF22) administered to a selected sample of women who had children enrolled in school in 1988. Since data on household income was not available from the MFLS-II data set, he also uses the 1987 Household Income Survey (HIS) conducted by the Department of Statistics to obtain the mean monthly household income, which is RM 1,467 in urban areas compared with RM 853 in rural areas. Total educational expenses reported by MFLS-II respondents were then, divided by nine which is the number of months per year that each child would be in school. This number was further divided by the average rural or urban monthly income as reported in the 1987 HIS.

These figures were then used to compare educational expenses as reported in the MFLS-II sample on the basis of their proportion of actual household income (Abd Rahaman, 1991:119). Unlike the study by Young, this study emphasized a comparison

between urban and rural parents. Abd-Rahaman found that rural parents spend more proportionately than urban parents at each of the three educational levels; the biggest difference of about 38% was reported at the secondary school level. Urban parents spend 4.8% of their income, in comparison to rural parents who spend 6.6% of their income at the secondary level. The fact that the secondary schools are located in the urban areas is probably one of the primary reasons for additional expenses incurred by the rural parents, such as traveling or boarding (Abd.Rahaman, 1991:120). Tsang and Kidchanapanish (1992) pointed out that this phenomenon could help to explain how private costs could be a burden, especially to the low-income families, and could result in reduced participation in education at all levels, especially in rural areas.

In conclusion, institutional costs and private resources of education have to be properly accounted for. Available evidence suggests that private resources are a significant part of total resources (i.e. the sum of public and private resources) and they are the major sources of support for some important inputs to education. Because it is often the case that private resources are not reported; failure to deal with the costs in an appropriate manner would lead to an underestimation of the true costs of education. Costs are more likely to be underestimated for private schools than government schools; this may lead to an overestimation of the relative efficiency of private education. Additionally, socioeconomic disparities among families can result in unequal availability of resources, which can be used to raise quality, and thus may intensify educational inequalities. All of these factors result in serious policy implications for families, educational providers, and government (Tsang and Kidchanapanish, 1992). The empirical evidence appears to suggest that there is a questionable advantage private schools appear

to have over the government schools. Private schooling costs are not necessarily lower than government schooling costs, and private schools may in fact not be more cost-effective.

Studies of educational costs are necessary in making proper comparisons between government and private schools. Inevitably, cost studies are needed to provide greater insights into educational investments and to provide a better understanding of what constitutes total resources that are required to be devoted to educational production before making any advantage claim between these two sectors. Obviously, information on cost is also needed to evaluate the relative cost-effectiveness of schools in the two sectors. Moreover, a careful analysis of private resources will reveal the level of economic burden on households and whether education financing is equitable. Furthermore, disparities in per-student cost could be significant between the two types of schools.

There is still a dearth of studies on the costs of government versus private schools in Southeast Asian countries. Indeed, this study will be the only one of its kind at the present time in Malaysia, given that there have been no equally rigorous government and private costs analyses based on field research thus far. This study generates value-added knowledge, which aims in essence to fill gaps in the research literature currently available for appropriate policy formulation regarding education in Malaysia. For this reason, a study in this area is highly desirable. My objective is to appropriately compare the costs of government and private schools and the implications for educational policy. Accordingly, this study will provide accurate information for appropriate choices to be made by families, educational providers, and policymakers in government.

CHAPTER III - METHODOLOGY

Introduction

This chapter is comprised of five sections: the *first section* lays out the key research questions addressed by this dissertation study. The *second section* presents the conceptual framework that provides the basis for my dissertation analysis in support of Malaysian Ministry of Education efforts to formulate equitable educational policies for Malaysian secondary schools at-large. The *third section* delves into the role of government vis-à-vis the role of the private sector in their interventions to reconcile mutual concerns, such as achieving maximum efficiency, capital constraints, and equity of expenditures, while providing services to all sectors of society. It examines the debate on the provision of government and private schools education from the perspectives of advocates and detractors of educational privatization. It also presents a framework for evaluating educational privatization according to the four-criteria, which have been used to evaluate privatization reforms (Levin, 2001). The *fourth section* lays out the research design, data collection (instruments and procedures), description of population, selection and sampling procedures. The foregoing was utilized not only for the research study, but also for the pilot study. Both studies lead to subsequent data collection, and the methods used in the data analysis to accomplish the desired objectives of this dissertation. Finally, the *fifth section* discusses the questions of what data were collected and how data would be analyzed.

III.1 Research questions

The purpose of this dissertation is focused on a comparison of costs in government and private secondary schools in Malaysia and is guided by five research questions:

1. What are the per-student institutional costs and private costs of government and private secondary schools in Malaysia?
2. How do private resources of secondary education vary by school type, level of household income, and geographical zone?
3. How much are household contributions for secondary education and how do households allocate their overall resources?
4. What is the level of economic burden for different social groups?
5. Are there significant differences of schooling costs in 1996 and 2003 for government schools?

It is the primary objective of this research to have cost comparisons between the two types of schools - both government and private – in Malaysia. Cost information not only allows subsequent cost-effectiveness analysis, but also enables government policymakers to assess disparities in per-student costs, as well as assess the economic burden on households. More importantly, appropriate cost information analysis leads to informed educational policies.

III.2. Conceptual framework

This section discusses the conceptual framework that provides the foundation for my analysis, which utilizes some aspects of the research literature currently available in this field. Cost analysis studies, updated as an integral component of Ministry of Education's successive five-year plans are vital to formulating equitable educational policies for Malaysian schools generally.

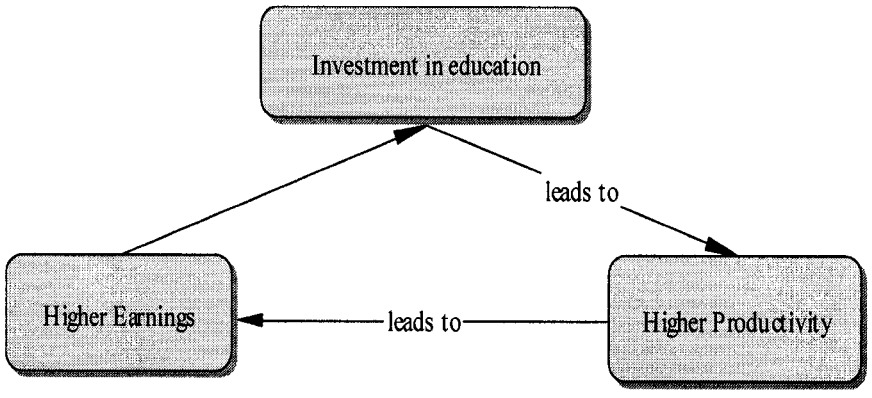
Human Capital Theory

There has been a prevailing argument that education greatly contributes to the economic growth of nations globally. The belief in the positive relationship between education and economic growth has been largely backed up by 'human capital theory' (e.g. Schultz, 1963 and Becker, 1964). According to the human capital approach, education is an investment in a person's future income potential, whereby variations in labor income are due, in part, to differences in labor quality as a result of the amount of human capital acquired by the workers (Cohn and Geske, 1990: 34). The theory's thesis is that education fosters economic growth by equipping people with skills, knowledge, and attitudes, thereby increasing the productivity of the work force of a nation. In a competitive labor market, more productive individuals are paid a higher wage. Schultz (1963) contended that the investment in human capital accounts for the rise in the real earnings of a worker. Additionally, Psacharopoulos (1985) confirmed that average wages are higher for more highly educated workers. In Malaysia, there is a strong correlation between schooling and earnings growth performance, which suggests that high levels of upper secondary and tertiary educational attainment are vital for human capital and could

be translated into earnings and steady growth for the national economy as a whole (OECD, 2002). A recent study by Psacharopoulos and Patrinos (2002) shows that in 1978 returns to investment in education at the secondary school level and at the tertiary level are 32.6% and 34.5%, respectively. Other studies, such as Lee (1980) and Mazumdar (1981) as cited in Chung (2000) also show that education plays an important role in explaining the earnings differentials in Malaysia.

As shown in Figure 3.1, more education means higher productivity and better earnings and, thus, improved socioeconomic status. To embark on an investment decision, one has to weigh the costs and the benefits of schooling to evaluate the rate of return of schooling at all levels. For the government, it is also important to consider both costs and effects of their educational investment over an extended period of time.

Figure 3.1: The human capital approach



Source: Cohn and Geske, 1990:34

III.3. Role of government vs. role of private sector

It has been widely accepted that public financing of education is required, mainly because of the public good characteristics of education, whereby its social benefits exceed private benefits significantly (Tilak, 1987). As the concept of education has been established in the 1948 United Nations Declaration of Human Rights, and since then has been reiterated in many international and national documents (Bray, 1996: 1), the role of government in providing education is universally regarded as essential and therefore obligatory. Some scholars justify government intervention for efficiency, capital constraints, and/or equity, while others contend the notion of potential inefficiency can arise when government has the monopoly power, because a lack of competition may restrict choices available to consumers (Belfield, 2000).

On the basis of demand aspects, the role of government is considered necessary due to asymmetric information and increasing returns to scale or externalities (Belfield, 2000: 164). *First,* information asymmetry exists where individuals may not realize the benefits of education until it is *'too late'* to maximize the benefits of full public education offered. Consequently, as Belfield has indicated, those '*who know what the education is worth*' have greater advantages both academically and economically than those '*who cannot be sure'* of education's long term value. Thus, government, in the interest of achieving national economic growth, needs to reduce the currently widespread uncertainty and ignorance, particularly in rural areas, about the benefits of education and ensure that both individual students and families are motivated and willing to make educational investments, resulting in long-range human capital formation for the society

or nation as a whole. *Second*, the regulatory role of government in capital markets is essential. For example, individuals and/or families may find it hard to convince banks to make substantial loans for educational purposes, whereas the government may offer educational loans on socially redistributive terms.

On the supply side, generally government may provide education more efficiently than the private sector, based on some of the following reasons. *First*, government may provide loan services and promote the educational agenda at the same time. Strategically, the government's effort may ease up unemployment, and this would have a fiscal effect on welfare payments. As Davis (1998) indicates and as cited also in Belfield (2000), the government's role also enables the provision of education and other public services to be merged. This strategy could be cost-effective. *Second*, on the status basis, government's reputation is more trusted than non-governmental agencies (for example, in Malaysia). *Third*, economies of scale enable the government to be in a better position to gather information and organize the distribution of up-to-date and impartial information, which the private market would tend to under provide. *Fourth*, unlike the market, government can mediate better than private providers in contracting and enforcing equitable educational services for all eligible students.

However, as a result of increasing in financing education at all levels for all eligible citizens, governments have adopted a favorable attitude toward private schools (Tilak, 1994: 69). In countries across Asia, both capitalist and socialist, the number of private schools has increased significantly since the early 1990's (Bray, 1998; Kwong, 1997; World Bank, 1997). This phenomenon reflects increased educational privatization, which has been defined by the World Bank (2002) as:

> " The act of reducing the role of government or increasing the role of the private sector in an activity or the ownership of assets."

Further, according to the Organization for Economic Cooperation and Development (OECD, 1990: 40):

> " The International Classification of Education defines private education as that provided in institutions managed by private persons. This definition covers a wide variety of situations. Some private institutions are wholly funded by the State; others are state-aided to a wide variety of degrees while others again receive no state aid at all. In any one country, the situation may vary over time or according to level or type of education."

Levin supports this statement and argues, "privatization will vary according to the perspective that one uses to judge the phenomenon" (2001: 5). He also provides a few examples of such perspectives as shifts toward greater privatization in the financing of education; the sponsorship of schools; the operation of schools; the composition of educational benefits; and the emergence of for-profit schools. However, cross–national data on private enrollment are often misleading, because the definition of a private school (refer to Table 2.1) varies across countries (Bray, 1996).[29]

Privatization is increasing for various reasons. In his research on educational privatization, Jarboe (1994) discusses reasons for this phenomenon. Claims made by proponents of educational privatization include that it will increase efficiency, increase output, improve quality, reduce unit costs, curb the growth of public spending, raise cash to reduce government debt, and improve not only economic growth and human development but also participation in society (Jarboe, 1994: 21). In another review of

[29] There are different definitions of a private school in nine countries, namely: Cambodia, China, Indonesia, Lao PDR, Mongolia, Myanmar, Philippines, Thailand and Vietnam.

educational privatization, Cuellar-Marchelli (2002) discusses the following potential advantages of privatization:

Improves educational services, quality, efficiency, and effectiveness, and at the same time reduces costs at the micro level (i.e. on the individual school level);

a) contributes to depoliticizing economic decisions;

b) improves national economic performance;

c) reduces size of the public sector by decreasing public spending at macro level, and moreover, it is claimed, provides freedom of choice to parents and students.

The pros and cons of government and private schools have been discussed to a great extent in both developing countries (e.g. Jimenez and Lockheed, 1995; Tsang 1995; 2002) and developed countries (Levin, 2000; Peterson, Myers and Howell, 1999). The market share of private schools may increase for several reasons.

Advocates of private schooling have argued that not only do private schools augment government resources for education, but they also offer choice by providing greater opportunities to meet the differentiated needs and tastes of parents. An increased private sector provision of education also encourages competition between the private and government schools and, advocates claim, this competition leads to improved efficiency of schools. Further, private schools are said to open doors to the expansion of the educational system[30] and address the unmet demands of parents due to any scarcity of educational opportunities in the public sector.

[30] Glewwe and Patrinos (1999)

Almost all countries of developing Asia have witnessed significant growth of private education during the 1990s related to the expansion of educational demand, i.e. the 'excess demand' for schooling and limited supply of school places in the public school system (James, 1987; Nguyen, 2002). For example, in Vietnam there have been too many demands for admission to secondary schools relative to the current available space at public schools (Nguyen, 2002). In addition to this, James (1993) also argued that people are pushed involuntarily to the private sector by "*limited public spending which creates an excess demand from people who would prefer to use the public schools but are involuntarily excluded and pushed into the private sector.*" In Indonesia, the importance of private education's role in the school system is reflected in student enrollment. Students attending private school represent 31.1% of the total student population of 48 million pupils (Ministry of Education and Culture, Indonesia, 1995).

On the contrary, the detractors of private schooling raise serious concerns about the negative effects of private schools on social equity and social cohesion.[31] It is argued that not only do private schools increase inequality; they also promote 'cream-skimming' of students[32] and subsequently aggravate racial and economic segregation. Students from low-income households are less able to attend high-quality private schools (Alderman et al. 1996). Also, private schools which can deliver services at fees sufficiently low to attract poor families may not deliver services of adequate quality. Other critics also assert that private schools which cater to the poor are exploiting low-income, often illiterate parents who are not capable of assessing if their children are learning or not.

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[31] Levin (1998)

[32] Krashinsky (1986)

Advocates and detractors of public and private schools' education may make assertions that lack rigor, reflect only one position, or are based on partial evidence. One way to avoid this is to apply a comprehensive, established four-criteria framework for comparing public and private schooling: productive efficiency, freedom of choice, equity, and social cohesion. These four criteria have been used to evaluate other privatization reforms (Levin, 2000). They are also useful for assessing the comparative efficiency of public and private schools based on current research literature. Briefly, the *first criterion* - productive efficiency - is the comparative ability of each approach to maximize educational outcomes utilizing given resources. The s*econd criterion* – equity - is fairness in providing equal access to educational opportunities, resources, and outcomes, regardless of gender, social class, race, language origins, and the geographical location of students. Generally, there are two types of equity: namely, horizontal equity, which refers to treating all people who are similar equally, and vertical equity, which refers to treating all people who have different needs differently according to their individual needs. A *third criterion* - freedom of choice - is the right of families to select schools that will impart to their children the family's values, religious beliefs, and political perspectives (Levin, 1991). Finally, the *fourth criterion* - social cohesion - refers to the preparation of the young for democratic and civic participation by providing a common educational experience with respect to curriculum, values, language, and institutional orientation. Thus, students from different backgrounds will accept a common set of social, political, and economic arrangements that will establish and sustain a stable and, hopefully, democratic society.

III.4. Research design

The sampling design for the survey involved a multi-stage cluster sampling method. Malaysian principals and parents of pupils in Form Two (grade eight) of government and private schools constitute the populations of interest for the study. Form Two classes were selected due to the scheduling of national exam. Data for this study was collected at the end of the school year October 2003 and would therefore, coincide with national school examinations. School principals would almost certainly disapprove any research to be carried out involving these exam classes (for example Form Three/grade nine or Form Five/grade eleven). This was also in line with the guidelines prescribed by the Ministry of Education's policy that state only non-examination classes would be allowed to be involved in research studies. Thus to ensure cooperation from the schools' principals and parents, in gathering information during this important examination period, Form Two classes, which were not scheduled for national exam had been chosen instead.

Data Collection

The source of data was derived primarily from selected samples of government secondary schools and private secondary schools in Malaysia and from parents of Form Two (grade eight) classes in these types of schools.

Information on institutional costs was obtained from the records maintained in the individual schools visited. Data on capital costs, however, had to be obtained from multiple locations. It is important to note that although records of the primary data in this study are kept at the school level, some of the capital costs data are not available from the schools. For government schools, some records regarding capital costs information are

kept at the State Education Offices in each regional zone and others at randomly could be obtained only through the Ministry of Education (MoE) in its Division of Development, Privatization and Supply, at Kuala Lumpur. Data on private costs was obtained from the parents' survey instrument, which was sent home through selected Form Two (grade eight) pupils. Consequently, for complete data collection, research had to be conducted at three levels: the local, the regional, and the federal levels.

Government secondary schools offer a comprehensive education program, ranging from regular/day secondary schools to vocational schools, technical schools, Islamic schools, special education schools, and fully residential schools. Private schools in addition, not only offer regular/day (academic) schools, Islamic schools, Chinese independent schools, and special education schools but also international schools. The focus of this study, however, is on the regular/day (academic) schools, both government and private, which represent the majority of schools in the Malaysian education system. Appendix 3 displays the list of both government and private sectors school sampled for purpose of this study.

Approvals

Accordingly, prior to the data collection, permission was sought from various levels of government. An application to conduct the current research was sent to the MoE (Educational Planning Research Division), which then forwarded a report to support the current research to the Economic Planning Unit of the Prime Minister's Office for approval. A permission pass (*Pas Penyelidikan*) was later issued along with an endorsement letter to introduce the researcher and indicate approval of the study. This

approval letter to conduct the current research issued by the MoE was then sent to the five State Education offices requesting them to provide requisite approval letters from each regional zone. Finally, after obtaining all these approval letters, an individual letter by the researcher was sent to each school principal to obtain his/her approval to visit and administer the questionnaires at the school level.

Questionnaires

There were two key research instruments used in the current study: the principal questionnaire and the parent(s)/guardian(s) questionnaire. The instruments employed were modified questionnaires based on the national study of government schools by the Ministry of Education in 1996. Among the modifications were: a) the additional detailed information on personnel costs (basic salary, employment benefits, and supplementary benefits) and non-personnel costs (instructional materials, teaching aids, minor repairs and regular maintenance, utilities, and student welfare), as well as school sources of income (government sources, non-government sources, household contributions, Parent-Teacher Association contributions, and community contributions), and b) indirect costs of schooling, and more detailed household spending information in the parent(s)/guardian(s) questionnaire. One focus of the new questionnaire was to gauge the costs of private schools vis-à-vis government schools in Malaysia. The use of the original questionnaires was also utilized for comparison purposes.

Prior to the distribution of questionnaires for the current study, a series of assessment instruments were conducted among several Ministry of Education personnel and school principals to ensure the credibility and accuracy of the items translated. Each

questionnaire has two versions: English language and Malay language. All government schools' questionnaires were administered in the Malay language. Some private schools however, requested that questionnaires be provided for them in the English language. Therefore, both English and Malay versions were made available to schools per their request.

Researcher went personally to each school to introduce, administer, and address any concerns participants might have regarding responding questions. The researcher also took extra care to allay any anxieties they might have about providing complete and accurate detailed information in regard to sensitive spending issues. The two instruments are detailed as follows:

1. Questionnaire A

Principal questionnaire is comprised of 78 items, primarily intended to gather the following data:

A. Information on school
B. Personnel costs
C. Non-personnel costs: instructional materials and teaching aids
D. Non-personnel costs: minor repair and regular maintenance
E. Non-personnel costs: utilities
F. Non-personnel costs: student welfare
G. School financial sources
    i. School income
    ii. Income from PTA, community contribution, and other organization
    iii. Capital costs.

2. Questionnaire B

Parent(s)/guardian(s) questionnaire is comprised of 23 items, primarily intended to gather the following data:

A. Parents' information
B. Parent(s)/Guardian(s)' education
C. Household expenditures on child's education
D. Indirect private costs of schooling
E. Household expenditures
F. Miscellaneous

Procedures

Each school was given one principal questionnaire and 15 questionnaires for selected parent(s) or guardian(s) of Form Two (grade eight). The principal was asked to respond to all items in the principal questionnaire. Before sending these questionnaires, phone calls and visits had been already arranged to explain and generate support from principals with regard to the study. Instruments were then sent personally to the chosen schools. In the other questionnaire, the parents' questionnaire, each principal was asked to select 15 students from the Form Two (grade eight) class to take the questionnaire home to their parent(s)/guardian(s). The class teacher would then collect the questionnaires within one week's time or sooner. My research team made sure that any doubts surrounding the responses provided would be clarified by follow-up phone conversations or queries to the student(s) and parent(s) or guardian(s). Identification of individual respondents was anonymous and protected in reports whether recorded manually or print documents at the school level or electronically on computer at the

regional level. Surveys conducted with both government and private schools followed similar procedures.

Distribution

The sequence of questionnaires distribution was as follows. At the outset, plans was made in such a way that questionnaires would be mailed to both the government schools and private schools. However, due to the time constraints and terribly rainy weather at the time when the data collection took place, this plan had to be abandoned. This research study was conducted during the monsoon season, which extends from July to December. So, the team members and I visited all schools in person, hand-delivering the questions instead. We therefore had the opportunity to meet with the principals, other administrators at the State Education offices, and MoE officers personally to applaud their support for the current study.

Tremendous amounts of effort and numerous attempts were made to convince principals of the significance of the current study, obtain their willingness to participate, and reassure them regarding strictly protected confidentiality of all responses. Some of the government schools were initially hesitant to disclose information and needed to be contacted several times to secure their participation. This was especially true in private schools. All the necessary letters of authorization from the Prime Minister's office, the Ministry of Education (MoE), and the State Education offices were presented through my personal visits to each principal individually. Subsequently, after distributing the parent questionnaires through the administrators of each school, phone calls were made as a follow-up to the questionnaires. Additionally, through the courtesy of key personnel and

team members, as well as supportive colleagues from the MoE, phone calls and visits were also arranged to some of the principals who seemed initially hesitant to participate in this study. Initially most of the schools visited were reluctant to disclose the schools' details due to the confidentiality of the information requested in this study. Further, they feared the information would expose the amount of resources they have and the amount of expenditures they incur, and that this information would be manipulated against their future profit generating and/or private interest. These difficulties in getting a significant response rate had already been anticipated though. However, due to the enormous effort put into this data collection, a substantial response rate of 69% had been obtained from private schools and 90% from government schools.

Personnel/Team

Technically, five research assistants (one in each region) were involved in helping to carry out this survey. To ensure that the survey was done efficiently, the researcher provided sufficient training to these personnel. Queries from schools or parents were responded to and handled wisely by trained team members; this ensured positive feedback.

Population and Sampling

The sample was selected to be representative of the urban population[33] to be studied, through a multi-stage sampling process. Similar criteria were used in choosing

[33] Percentage of population urbanized in Malaysia is 59% in 2002 (UNICEF, 2004).

the schools, such as all schools are regular/day (academic) schools[34] and follow national curriculum. Other schools such as technical schools, vocational schools, sports schools, religious schools, and special education schools are not included in the sample.

Malaysia is divided into five zones based on socioeconomic and geographical criteria. The sample population is derived from representatives of zones, namely the North, South, East and Central zones of Peninsular Malaysia (West Malaysia), and the East Malaysia zone. The distribution of states in each zone is shown in Table 3.1. Within each state, there are several districts; within districts, there are urban areas and rural areas.

At the first stage, random sampling was done from each zone by choosing one state as a representative from each respective zone. The sample states chosen are Kedah (North), Wilayah Persekutuan (Central), Johor (South), Kelantan (East), and Sarawak (East Malaysia).

The list of government schools in Appendix 1 had been obtained from the data unit of Malaysia's Educational Planning and Research Division in the MoE, based on School Year (SY) 2001, while the list of private schools had been obtained from the Private Education Division of the MoE as published by its website.[35] In the schools' lists provided, schools had already been segregated into their geographical strata, i.e. urban and rural areas.

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[34] It is important to note that the selection of schools was based on random sampling. This study included 4 smart schools in the sample. "Malaysian Smart School" is a project implemented by the MoE in 1999 at 90 selected government schools nationwide (i.e. 4 primary and 86 secondary schools) to transform Malaysian school system via the use of multimedia educational courseware, exploratory learning, collaborative education, and distance learning (Umat, 2000). A substantial amount of funding was allocated and spent by the government for this project.

[35] Website is: http://www2.moe.gov.my/~jps/Fpage/BMelayu.htm. Date accessed July 10, 2003.

Table 3.1: Distribution of states in Malaysia by zones

14 States	Zones
Perlis, Kedah, Pulau Pinang, Perak	North
Selangor, Wilayah Persekutuan	Central
Melaka, Negeri Sembilan, Johor	South
Pahang,Terengganu, Kelantan	East
Sabah, Sarawak	East Malaysia

According to Department of Statistics, Malaysia (2000), the classification of areas by stratum is presented in Table 3.2 as follows:

Table 3.2: Classification of areas by stratum

Stratum	Population of gazetted and adjoining built-up area
Metropolitan	75,000 and above
Urban Large	10,000 – 74,999
Urban Small	1,000 – 9,999
Rural	The rest of the country

Source: Department of Statistics, Malaysia (2000)

Based on the pilot study and feedback from key officers within the MoE, the regular/day (academic) private schools are almost, if not entirely, dominated by urban children whose families have higher income. Therefore, in an attempt to compare government and private schools in similar context (Tsang and Taoklam, 1992), only urban schools located within 20 km from the city centers were considered for the current

study. Additionally, the interest of the study was partially to elicit information on parents' household income and educational spending behavior. Altogether, there were at the time of field research for this study (2003), 207 government and 32 private secondary schools in Malaysia. Approximately 20 percent of the total number of government schools and 40 percent of the total number of private schools were sampled in this research study. This was to ensure schools are proportionately representative of each selected state. Table 3.3 shows the distribution of sample schools by states and urban area. Of the study's total sample of 55 schools, 42 are government schools and 13 are private schools. There are 825 Form Two (grade eight) students participating in this study. Consequently, 80% of school principals and parent(s)/guardian(s) responded to the questionnaire.

Table 3.3: Distribution of government and private secondary sample schools by states and urban areas

Zones	States	Government	Private	Sample of government schools	Sample of private schools	Total sample schools
North	Kedah	26	4	5	2	7
Central	Wilayah Persekutuan	71	9	14	3	17
South	Johor	58	9	12	3	15
East	Kelantan	19	7	4	3	7
East Malaysia	Sarawak	33	3	7	2	9
Total		207 schools	32 schools	42 schools	13 schools	55 schools

Pilot Study

This study included the use of pilot questionnaires and trial interviews with principals and parents who were willing to provide feedback. Parents of Form Two were selected by principals to provide feedback on the parent's questionnaire. The pilot study

was conducted to test and validate these instruments. Also, the pilot study was imperative to ensure the adequacy of the variables asked for and to check for an understanding of the items presented to the principals and Form Two (grade eight) parents. For this purpose, two methods were explored: namely, mailed questionnaires and directly administered questionnaires.

In this exploratory pilot study to establish the parameters for the actual fieldwork research study, principals and parents of the selected government and private schools were asked to complete the questionnaire in Appendix 2. Parent Teacher Association meetings were explored as venues to get some feedback on the instrument's items and thus, to improve on the parent's(s)/guardian's(s) questionnaire.

Letters of authorization from the Prime Minister's office, Ministry of Education and five State Departments of Education (from five zones) proved to support both the pilot and subsequent actual field research study of government schools and private schools. In the pilot study, questionnaires were initially mailed to the government schools and the private schools. Subsequent follow-up included phone calls, emails, and visits to schools where it seemed necessary or was deemed to be appropriate protocol.

The pilot study was executed primarily in Selangor and Wilayah Persekutuan, in several districts located within 20 km from the city centers. Feedback from the respective government and private schools' principals and parents of Form Two students was used to revise the draft questionnaires. Other reliable sources included interviews of teachers, school accounts clerks, and some key personnel within the MoE who were also helpful in providing insights significant in formulating the questionnaires. The intention of the interviews was, particularly, to retrieve more information with regard to items in the

questionnaires. Based on the experience of the pilot study, these interviews were noteworthy in providing further information, and identifying additional relevant factors that further were incorporated into the questionnaires. Inevitably, follow-up phone interviews and phone calls were heavily used in this piloted study to assure positive and usable feedback regarding the costs of government schools in contrast to private secondary schools in Malaysia.

III.5. Data description

The Use of the Ingredients Approach

In the current study, the ingredients approach[36] was employed to compare the costs between the government and the private schools in Malaysia consistent with the research literature: for example, research by Tsang and Taoklam (1992) and Cuellar-Marchelli (2003). The ingredients approach, which is a disaggregated approach, is based on individual inputs or resources (ingredients) used in the production of an educational program. This approach was developed to provide a systematic way for evaluators to estimate the costs of social interventions (Levin and McEwan, 2001). Further this approach also requires that costs of all inputs and services associated with a particular intervention be identified so as to determine total costs and examine how the cost burden is distributed among different agents (Levin and McEwan, 2001). To compare costs of government secondary schools and private secondary schools in Malaysia, detailed information on school level was obtained via survey questionnaires.

[36] Ingredients are resources that are needed for each intervention (Levin and McEwan, 2001:59).

Based on the ingredients approach, data on institutional costs were collected from a survey of 55 secondary schools, consisting of 42 government schools and 13 private schools. Out of these schools, 90% of government schools and about 69% of private schools responded. Costs are identified through two questionnaires: Questionnaire A for principals and Questionnaire B for parent(s)/guardian(s). In the principal questionnaire distributed, each principal was asked to provide responses on the school's demographic data and on the school's detailed expenses and sources of income. The expenditure and income data came from the audited year 2003 accounts of the sample schools. On the other hand, in the parent(s)/guardian(s) questionnaire, each parent(s)/guardian(s) was asked to provide responses on their family's demographics, as well as details of their child's school expenses and other funds/scholarships received from sources such as scholarships from the state government, donations, pocket money from religious organizations, and/or funds from philanthropies) during the year 2003.

Specification of ingredients

In the government schools, all the pieces of information were provided by the principals and parents in the sample schools via Questionnaire A and Questionnaire B respectively. A detailed information regarding the capital costs, however, were obtained from the State Education Office (Development, Privatization and Supply Division at the State level), as well as the Development, Privatization and Supply Division at the federal level. In the case of the private schools, the information was retrieved at the school level, reported and provided by the principal and the parents through Questionnaire A and Questionnaire B.

Employing Levin and McEwan's (2001) identification and specification of ingredients, several common categories were identified and reported through the questionnaires. These categories are listed below.

Personnel

This category includes school administrators (principal, assistant principals, counselor), teachers (full-time and part-time), and school support staff. Personnel costs are comprised of salary, employment benefits, and supplementary benefits of all the personnel identified. Briefly, employment benefits include allowances such as *Imbuhan Tetap Khidmat Awam and Imbuhan Tetap Keraian* (basic allowances for administrators, full-time teachers and support staff), *Imbuhan Tetap Perumahan* (lodgings allowances for administrators, full-time teachers and support staff) and *Elaun Tanggungjawab* (specific task allowances for administrators). Supplementary benefits are the yearly bonuses awarded for administrators, full-time teachers and support staff, which comprised of approximately half of a month's basic salary, but not less than RM 600. In the government schools, these personal costs are paid through grants from the federal government to schools provided on a per capita basis. They constitute the major portion of total school costs as indicated in the review of the literature.

Non-Personnel

This category includes instructional materials, teaching aids, school supplies, minor and regular repair and maintenance, utilities, student welfare, utilities, and uniforms for support staff. The information regarding personal costs and non-personal

costs as documented in the requested questionnaires is considered reliable as these questionnaires were returned completed by the principals at a rate of 90% for government schools and at a lower rate of 46% for private schools. Non-personnel costs are relatively small compared to personnel costs.

Facilities

Facilities include classrooms; offices; additional renovations; extended school buildings; cafeteria space; hostel space;[37] and school fields for sports purposes. In this study, for accounting purposes, it was assumed that school buildings made of concrete will last at least 30 years before major repairs are required.

In estimating the cost of infrastructure, the following procedures were pursued:

1. *First*, costs were estimated at 2003 value using the Consumer Price Index (CPI).
2. *Second*, an annualization factor was used to estimate the annualized cost of facilities or the cost of infrastructure at market or replacement value. The annualization depends on the discount rate and the expected years of service of the input. In this study, 5% discount rate and 30 years of lifetime of assets were determined by the federal government Department of Statistics in Malaysia.

In practice, however, Tsang and Taoklam (1992) reported the average rate of return to physical capital of 10% is used as a discount rate. Except for new schools, the

[37] Some government regular/day (academic) schools provide hostel facilities for disadvantaged students (for instance, high achievers from low-income family and selected students from other region)

difficulties in estimating costs for many old schools were very obvious. Some information was reported as either misplaced, lost, or had no proper documentation. Whenever this happened, the officers employed replacement cost. The data was considered reliable as experienced officers, who were given the responsibility for jurisdiction over the development and maintenance of the schools in terms of particular zones, reported this estimation. Data from the State level and the Federal level was then matched to compare and validate its reliability. It should be noted that costs could vary tremendously. Some factors deeply influenced the costs of construction or project costs, which were documented in this fieldwork as:

1. transportation or shipment mode of transporting material either by road, air, or sea;
2. land types such as swampy land, would need leveling of soil; and/or hilly land would need blasting of rocks;
3. materials such as cement, sand, bricks and metal fall under the category of controlled items, to be procured from main producers of approved suppliers only.

Some guidelines given by the State Education Offices could be useful in estimating costs of infrastructure in particular zones as shown in Table 3.4.

Equipment, Furniture and Fittings, and Materials

This category includes furnishings, instructional equipment (e.g. computers, books, radios, cassette players etc.), project expenditures, as well as items donated by external sources (for instance, philanthropies, Parent-Teacher-Associations, and clubs).

Prior to obtaining annual costs of equipment, furniture and fittings, similar research procedures were exercised:

1. Existing raw data on costs were estimated at 2003 value using the Consumer Price Index.
2. Costs were then set, equal to the annualized cost. According to the norms set by the Department of Statistics of Malaysia, equipment, furniture, and fittings are expected to last at least five years and the discount rate for this category was set for accounting purposes at 7%.

Some guidelines given by the State Education Offices proved to be useful in estimating costs of equipment, furniture, and fittings for typical urban secondary school as shown in Table 3.5. It should be noted here that although the same producers or suppliers provide the furniture and fittings, as well as equipment, the costs vary according to regional zones[38] because of the shipment mode, specific conditions, affecting the suitability of available land for building schools, and other factors as indicated above.

Utilities

Utilities include Internet bills, including Internet access charges, phone bills, water and sewage charges, and electricity bills.

[38] Malaysia is divided into Peninsular Malaysia: Central, North, South, East; and East Malaysia.

Market value of land

The cost of land is taken to be the imputed annual rent of the land. In this study, land cost was set equal to the product of the average rate of interest in 2003 (at 3%)[39], the price of land in 2003, and the area of land. The imputed costs of land per unit area vary remarkably among different zones, as there can be large zones differences in the price of land in the five states included in the study sample. Although the indicated estimation of land costs could be subjective and disputable, nevertheless, this information was provided based on the best approximation by the on-site State Education officers in each particular zone. The data on the market value of land, which they provided, has been tabulated according to particular zones in Table 3.6. On the basis of confidentiality of information about the price of land; on the outset, the majority of the officers were quite reluctant to disclose prices of land. Accordingly, these figures should be observed with caution. Also, the price of land could vary from one place to another depending on whether the soil is flat, hilly, swampy, or rocky and also on the location of the land whether it is urban, semi-urban, or rural.

Direct private costs of education

The direct private costs of education include both tuition costs and non-tuition costs such as, other school fees, uniforms, textbooks, writing supplies (e.g. pencils, rulers, notebooks, erasers, color pencils, and pens), school bags, transportation, shoes, and sportswear.[40]

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[39] The Department of Statistics of Malaysia uses the rate 3% for the year 2003.

[40] Not all the costs of shoes and sportswear are related to schooling since these items are often used by students outside school (Tsang and Kidchnapanish, 1992)

Indirect private costs of education

Indirect private cost of education is the estimate of the additional hours children would work either at home or outside had they not been enrolled in school. In this study, it was impossible to obtain this information as all Form Two children in Malaysia are in school. Moreover, it is illegal by law, for a Form Two child to work.

Household contributions to school

This information was obtained from the parent's questionnaire (i.e. Questionnaire B). Each parent or guardian was asked about his/her contributions in cash to school or to teachers. Information regarding contributions in kind was also solicited, such as time, energy, chaperoning school trips, cooking dishes, and volunteering in school functions in one school year's period. Parents were requested to document the costs of these contributions according to their best estimates.

Table 3.4: Some guidelines in cost of infrastructure by zones (regular/day school)

Under Eighth Malaysia Plan (2001-2005)	**School building**
Cost of buildings/facilities for a secondary school (urban area)	**Standard specification for secondary school**
Peninsular Malaysia: ▪ On average, the costs could approximately be RM 15 million. East Malaysia: ▪ On average, the costs could range from RM 25 million (25.454 acres), RM 26 million (24.14 acres) to RM 28 million (18 acres).	1. 36 *bilik darjah* (classrooms)[41] 2. 1 *Blok Pentadbiran* (administration building) 3. 6 *makmal sains* (science laboratories) 4. 1 *dewan sekolah* (school auditorium) 5. 1 *surau* (prayer room) 6. 1 canteen 7. 1 Living Skill room 8. 1 Computer laboratory 9. 1 Music room 10. 1 Arts roo m 11. 1 Library / Resource center
Per Unit cost	**Area**
▪ Per classroom (with furniture and fittings), on average: Peninsular Malaysia: Ranges from RM 35,000 to RM 45,000; East Malaysia:[42] Ranges from RM 70,424.44 to RM 120,200	▪ Per classroom was equivalent to 30' by 24' or 66.89 square meters or reported as approximately 67.5 square meters.
▪ Per science laboratory (with furniture and fittings) on average: Peninsular Malaysia: Ranges from RM 60,000 to RM 80,000; East Malaysia: Approximately RM 518,653	
Peninsular Malaysia: ▪ Per block (without furniture and fittings) of 100 students is approximately RM 1.4 million; per block of 400 students is approximately RM 4 million ▪ Cost of furniture and fittings (for hostel) per student is RM 5,000.	**Standard specification for hostel** Minimum: 2 blocks ▪ Per block of 100 boys ▪ Per block of 100 girls ▪ 1 *dewan makan* (cafeteria)
Peninsular Malaysia: ▪ Per unit 'F' class unit for teachers' quarters: Approximately RM 100,000 per unit ▪ 100 units is about RM 12 million	
Peninsular Malaysia: ▪ Per unit auditorium: Ranges from RM 1.8 million to RM 2 million	

[41] Number of classrooms can range from 18, 24, 30 to 36 classrooms depending on the school size and location – urban or rural.

[42] For estimation purposes, the norm given by the MoE is to beef up the price of East Malaysia by 50% than that of price of Peninsular Malaysia.

Table 3.5: Some guidelines in cost of furniture and fittings and equipments for a new secondary school by different classrooms (urban area)

Under Eighth Malaysia Plan (2001-2005)	**School building**
Cost of furniture And fittings and equipment for a secondary school (urban area)	**Standard specification for secondary school**
1. Based on the standard specification indicated, on average, the costs of furniture and fittings and equipment for new school is approximately RM 558,748.	1. 36 *bilik darjah* (classrooms)[43] 2. 1 *Blok Pentadbiran* (administration building) 3. 6 *makmal sains* (science laboratories) 4. 1 *dewan sekolah* (school auditorium) 5. 1 *surau* (prayer room) 6. 1 canteen 7. 1 Living Skill room 8. 1 Computer laboratory 9. 1 Music room 10. 1 Arts roo m 11. 1 Library / Resource center
2. Based on the standard specification indicated, on average, the costs of furniture and fittings and equipment for new school is approximately RM 521,250	1. 30 *bilik darjah* (classrooms) 2. 1 *Blok Pentadbiran* (administration building) 3. 6 *makmal sains* (science laboratories) 4. 1 *dewan sekolah* (school auditorium) 5. 1 *surau* (prayer room) 6. 1 canteen 7. 1 Living Skill room 8. 1 Computer laboratory 9. 1 Music room 10. 1 Arts roo m 11. 1 Library / Resource center
3. Based on the standard specification indicated, on average, the costs of furniture and fittings and equipment for new school is approximately RM 482,989.	1. 24 *bilik darjah* (classrooms) 2. 1 *Blok Pentadbiran* (administration building) 3. 6 *makmal sains* (science laboratories) 4. 1 *dewan sekolah* (school auditorium) 5. 1 *surau* (prayer room) 6. 1 canteen 7. 1 Living Skill room 8. 1 Computer laboratory 9. 1 Music room 10. 1 Arts roo m 11. 1 Library / Resource center

[43] Number of classrooms for secondary schools can range from 24, 30 to 36 classrooms depending on the school size and location – urban or rural

Table 3.6: Land at market value (urban area) by zones

Zones	Market Value of land in an urban area (2003)	
Central	On average, 1 square foot is approximately ranging from RM80, RM 100, RM 150, RM 200 to and RM 250. Prices vary immensely.	
North	On average, 1 square foot is approximately RM 8 to RM12 (semi-urban), while 1 square foot is RM 25-RM 35 (urban).	
East	On average, 1 square foot is approximately ranging from RM 42 to RM 54.	
South	On average, 1 square foot is equivalent to RM 4.6.[44]	
East Malaysia	On average, 1 square foot is equivalent to RM 11.48 to RM 18.36 in an urban area.[45]	
	Area of land	**Condition of land for a new school**
	▪ The land area for old secondary schools was reported as ranging from 6 to 8 acres per school site. ▪ The standard land area[46] for a new secondary school [47] is currently set by the Malaysian federal government to be approximately between 8 to 15 acres per school site.	▪ A minimum land area for flat ground/soil is 3 hectares (i.e. 7.41 acres) per school site. ▪ A minimum land area for hilly ground/soil is 4 hectares (i.e.9.88 acres) per school site.

[44] It was reported that 1-acre is equivalent to approximately RM 200,000 in this zone.

[45] It was reported that 1-acre is equivalent to approximately RM 500,000 to RM 800,000 in this zone.

[46] This is a standard land area for secondary school as employed by MoE. The guideline is however established by the Department of Urban and Rural Town Planning for Peninsular Malaysia, Ministry of Housing and Local Government Malaysia, 1998.

[47] On the other hand, a standard land area for a primary school is set to be between 5 to 10 acres (a minimum of 2 hectares for a flat ground/soil and 3 hectares for a hilly ground/soil). 1 hectare is equivalent to approximately 2.47 acres.

CHAPTER IV – FINDINGS

Introduction

The purpose of this chapter is to present the analysis of data obtained from fieldwork conducted during the school year 2003 regarding the costs of private and government secondary schools in Malaysia. The chapter is divided into three sections and principally organized according to the five research questions stated earlier. The *first section* presents the treatment of raw data in this study. This section describes the data cleaning and the data entry process. The *second section* examines the characteristics of sampled schools obtained from the questionnaires in the two types of schools. Finally, the *third section* critically examines and answers the five research questions.

IV.1. Treatment of raw data

This study employed raw data from two sets of questionnaires: a questionnaire for school principals and a questionnaire for parent(s)/guardian(s). The raw data were obtained during the data collection period from September 2003 to January 2004[48] utilizing on-site fieldwork, emails and phone conversations not only with selected principals of private and government schools, but also with officers in the Ministry of Education. Information sources for school costs include accounts audited by the Treasury Department and the on-site officers of the Ministry of Education for the school year 2003.

[48] Due to lack of information, author again seeks further information on student enrollment between May 3 to May 5, 2004 via phone conversation, specifically to six government schools and two private schools involved.

Data entry was primarily done using the Statistical Package for the Social Sciences (SPSS) software for Windows. The Excel program was also used in merging the derived variables from the SPSS program. Additionally, capital costs computations, such as the calculation of the market value of land, annualized cost of buildings, annualized cost of equipment, and annualized cost of furniture and fittings, were computed using the Excel program before they were keyed into the SPSS program.

Two sets of SPSS data files were created. One data set was the data file regarding school principals' responses; this file was further sub-divided into a private school principals' data file and a government school principals' data file. The other data set was the parents' data file, which was similarly sub-divided into a private school parents' data file and a government school parents' data file. Data was keyed in and examined carefully. Problematic data were corrected after the data in question had been verified with the schools and officers involved. Employment benefits for some private schools were estimated to be 13% of basic salaries (same ratio as that of the private school with the most complete data). Tuition costs and educational fees provided by individual parents were also verified with each private school to validate the range of the amounts provided in the questionnaires. Values for the derived variables were then computed before the four data files were merged into two data files: namely, (a) the All Principals data file, and (b) the All Parents data file.

Variables of the questionnaire for school principals

The following variables were derived from the raw data of several individual items surveyed in the principals' questionnaire:

1. basic salary;
2. employment benefits;
3. supplementary benefits;
4. total personnel costs;
5. instructional materials;
6. teaching aids;
7. minor repairs and regular maintenance;
8. utilities;
9. student welfare;
10. in-house teacher training;
11. total non-personnel costs;
12. total recurrent costs;
13. total capital costs; and
14. total institutional costs.

Variables of the questionnaire for parent(s)/guardian(s) of Form Two

Similarly, the following variables were derived from the raw data of several individual items surveyed in the parents' questionnaire:

1. direct costs;
2. household contributions;
3. private resources of schooling;
4. household educational spending;
5. economic burden.

IV.2. Characteristics of sampled schools

Total responses of 69% of private schools and 90% of government schools were obtained through administration of the questionnaires.

Table 4.1 presents the characteristics of private secondary schools and government secondary schools in Malaysia. The average size of private schools is about one-third of that of government schools. Private schools have a lower student-teacher ratio than government schools; and two-thirds of them operate for a single session per day. The majority of government schools, 52.8%, operate as double-session schools. This double-session scheduling may be due to a shortage of classrooms, science laboratories, and science and mathematics teachers as documented by Loke et al (1999).

An interesting observation can also be made about the relationship between student–teacher ratio and an average teacher's salary in private and government secondary schools. When compared to government schools, on average, the private schools offer a lower compensation, RM 27,288 per teacher, whereas the typical salary offered to government school teachers averages RM 38,540.

Nonetheless, the two types of schools have not much difference in percentage of teachers in relation to the total number of personnel of all categories. Given that private schools have a lower student-teacher ratio (a smaller class size), private schools are perceived by many parents to be providing a more favorable teaching and learning environment when compared to a larger student-teacher ratio (a larger class size) in government schools.

This study also provides some evidence regarding the comparative socioeconomic status of parents of secondary school students in both private and government schools. Three categories of total household income were obtained in this study. These three total household income categories are: (a) first income group: RM 1,000 and below; (b) second income group: RM 3,000–RM 4,999; and (c) third income group: RM 5,000 and above. The total household income level indicates the socio-economic status of a family in this study. Only a small number of parents (13%) of private school students are in the lowest income group in contrast to more than half (54%) of parents in the government schools who are in the first income group, RM 1,000 and below. The proportion of parents in both private and government secondary schools in the second income group is, however, similar: approximately 18% for both. This study shows that the majority of parents of private school students, 69%, are in highest income group in comparison to only 28% of parents whose children attend government schools.

One observation here is that children from the top income group (the wealthiest households) have substantially greater representation in private schools than children from the other income groups. In general, the majority of parents whose children attend the urban private schools are of Chinese ancestry. In contrast, children from the lower income group are substantially more represented in government schools than children from the other income groups. Generally, the majority of parents in the urban government schools are of Malay ethnic heritage.

In short, private schools serve a small percentage of students in secondary schools in Malaysia who are mainly from well-to-do families in urban areas. Thus, the policy implications of this finding suggest further study is essential, as the issue of reducing

educational disparities and inequities among the two major ethnic groups in both private and government secondary schools in Malaysia is vital in promoting national unity.

Table 4.1: Characteristics of government and private secondary schools in Malaysia, 2003

	Government School	Private School	All
Student enrollment (school size)	1431 (36)	449 (5)	1311
Student -Teacher ratio	17.0	8.4	15.8
Total number of personnel	99.0	60.4	94.3
Percentage of teachers	84.1	83.5	84.0
Average teacher salary (RM/year/teacher)	38,540 (36)	27,288 (5)	37,167 (41)
School session:			
Single session	47.2% (17)	60.0% (3)	48.8% (20)
Double session	52.8% (19)	40.0% (2)	51.2% (21)
Ethnicity:			
Malay	56%	4%	47%
Chinese	30%	88%	40%
Indian	5%	4%	5%
Peribumi	8%	3%	8%
Others	1%	1%	1%
Income level:			
First income group (RM 1,000 and below)	54% (295)	13% (14)	47% (309)
Second income group (RM 3,000 – RM 4,999)	18% (97)	18% (20)	18% (117)
Third income group (RM 5,000 and above)	28% (153)	69% (76)	35% (229)

Note: Figures in parentheses denote frequency

IV.3. Institutional costs and private costs, 2003

What are the per-student institutional costs and private costs of government and private secondary schools in Malaysia?

Section IV.2. addresses the above research question. This section estimates institutional costs per student and private costs per Form Two student.

IV.3.1. Recurrent costs per student, 2003

Table 4.2 presents the recurrent cost per student of private and government secondary schools in Malaysia in 2003. According to Table 4.2, the average recurrent cost of private schools amounted to RM 5,607 per student in column [2] and was much higher than that of government schools, RM 2, 707 in column [1]. The average per-student recurrent cost of private schools was 107% more than that for government schools. Figure 4.1 presents the distribution of personnel and non-personnel inputs in the recurrent costs of private and government secondary schools.

In private schools, 79% of the total recurrent cost of schooling was spent on personnel inputs and almost all of these inputs, i.e. 86.2% of the personnel costs, were devoted to salaries (RM 3,818 out of RM 4,432), while only a small percentage, 13.9%, was spent on non-salary personnel costs. However, in government schools, an overwhelming 95% of the total recurrent cost of schooling was spent on personnel inputs; and among personnel costs, 75% was spent on salaries (RM 1,918 out of RM 2,558). Thus, 71% of total recurrent cost went to salaries.

One interesting observation concerns teacher allowances. Compared to government schools, private schools spent nearly 2.4% of their total personnel costs on temporary teachers (shown as allowances) as opposed to less than 0.2% spent by government schools. This suggests that private schools may employ non-certified teachers, to cover for short-term shortages of teachers during the school year instead of hiring full-time teachers or it may also suggest that private schools pay more to attract experienced temporary teachers than do government schools. Nonetheless, as Table 4.1 documented, the average teacher's salary in private secondary schools was only 71% of the average teacher's salary in government secondary schools in the school year 2003.

While private schools spent 21% of the recurrent cost on non-personnel inputs, government schools spent only 5% on these inputs. In comparison to government schools, private schools spent 7.9 times more than government schools spent on non-personnel costs. As shown in column [4], most of the non-personnel costs in private schools went to minor repairs and regular maintenance (29.9%), utility (19.3%), and teaching aids for schools (18.3%). In contrast, as shown in column [3], among the non-personnel inputs, most of the costs in government schools were taken up by minor repairs and regular maintenance (25.8%), along with teaching aids for the schools (25.1%), and utilities (22.3%).

One interesting observation is that the two types of schools spend a substantial proportion of non-personnel costs on items such as minor repairs and regular maintenance, teaching aids for the schools, and utilities. It is also worth noting that the private schools spent more on in-house teacher training (10.8%) while government schools spent less on in-house teacher training (8.5%). Some reasons for this difference

may be due to the fact that government schools require teachers to have teaching certificates, undergo fitness training, and sit for employment examinations; whereas private schools do not have this requirement and therefore may need to provide training after hiring their teachers.

This dissertation study documents significant differences in the utilization of resources in both private and government schools. One possible explanation could be the recent impact of policy changes in the Ministry of Education in January 2003,[49] particularly regarding the change of the medium of instruction in the secondary curriculum for mathematics and science subjects from the national language, Malay, to the English language. Not only does this policy change have an impact on textbooks, other effects also include major changes in the examination papers, workbooks and other teaching aids, and instructional materials, the costs of which must be borne by parent(s)/guardian(s)/families, as well as by schools.

For private schools, however, the recent change in the Ministry of Education's policy has had little impact, simply because the emphasis on the English language is already embedded in their curricula and educational practices.

This study also verifies the differences between private and government schools in terms of single-session and double-session of schooling. Table 4.1 shows that two-thirds of the private schools have single-session schooling and more than half of the government schools have double- session schooling.[50]

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[49] Available [on-line]: http://www.tutor.com.my/tutor/etems/index.asp?pp=main2.htm

[50] In Malaysia, for example, a common pattern for double-session schooling is: first shift: 7:40 am to 12:40 pm; and second shift: 1:00 pm to 6:00 pm (Bray M., 2000). Single-session, however, varies from one school to another. One example is: 8:00 am to 3:00 pm.

Table 4.2 and Table 4.3 show that per-student recurrent cost and per-student capital cost vary significantly between the single-session (S) and double-session (D) of schooling whether the children are in the private schools or the government schools by geographical zones before controlling for other factors. Bray (2000:28) argues that double-shift systems can help achieve vital economic goals and usually reduce the unit costs of education. The current study shows that this is true, except for per-student recurrent cost in the private secondary schools in Malaysia. The results of the single-session and double-session of schooling can also be summarized as follows:

a) Per-student recurrent cost: Government schools: S > D

b) Per-student recurrent cost: Private schools: S < D

c) Per-student capital cost: Government schools: S > D

d) Per-student capital cost: Private schools: S > D

Table 4.5 presents the institutional costs by type and geographical zone in 2003. It shows that variations among the zones in the per-student recurrent costs are significant, particularly among the private schools. One private school in the North zone has per-student recurrent cost that is one-and-a-half times the national average for private schools. This could be principally due to the fact that findings are based primarily on a small school with relatively lower student enrollment (e.g. the student-teacher ratio for this school is 2.0). However, an East zone private school, per-student recurrent cost is also higher than the national average for private schools, mainly due to the fact that findings are based primarily on a relatively new school established in 2002 that has six classrooms, fewer teachers, fewer personnel and the student-teacher ratio for this school is 3.9.

Table 4.2: Per-student recurrent cost of private and government secondary schools in Malaysia, 2003 by type, by geographical zones, and by school session (RM/student/year)

	Single session			Double session	
	Govt sch	Private sch		Govt sch	Private sch
All	2,753	4,806	All	2,650	6,513
	N=17	*N= 3*		*N=19*	*N= 2*
North	2,961	-	North	2,766	8,391
	N=4	-		*N=1*	*N=1*
East	3,529	6,538	East	3,179	-
	N= 2	*N= 1*		*N= 1*	-
South	2,777	3,881	South	2,812	-
	N= 2	*N= 1*		*N= 10*	-
Central	2,562	-	Central	2,452	-
	N= 7	-		*N= 2*	-
East Malaysia	2,208	3,998	East Malaysia	2,277	4,635
	N= 2	*N= 1*		*N= 5*	*N= 1*

Table 4.3: Per-student capital cost of private and government secondary schools in Malaysia, 2003 by type, by geographical zones, and by school session (RM/student/year)

	Single session			Double session	
	Govt sch	Private sch		Govt sch	Private sch
All	1,427	1,392	All	354	776
	N=15	*N= 3*		*N=17*	*N= 1*
North	768	-	North	669	-
	N=3	-		*N=1*	-
East	152	3,743	East	137	-
	N= 2	*N= 1*		*N= 1*	-
South	106	146	South	75	-
	N= 1	*N= 1*		*N= 10*	-
Central	2,108	-	Central	1,028	-
	N= 7	-		*N= 2*	-
East Malaysia	1,970	286	East Malaysia	805	776
	N= 2	*N= 1*		*N= 3*	*N= 1*

Table 4.4: Per-student recurrent cost of secondary schools in Malaysia, 2003 (RM/student/year)

	Amount (RM/student)		Distribution in (%)	
	Government School	Private School	Government School	Private School
(a) Personnel costs:	[1]	[2]	[3]	[4]
Basic salary	1,918	3,818	75.0%	86.2%
Employment benefits	335	433	13.1%	9.8%
Supplementary benefits	300	75	11.7%	1.7%
Allowances (temporary teachers)	5.2	105.7	0.20%	2.4%
Total personnel costs	2,558.2	4,431.7	100%	100.0%
(b) Non-Personnel costs:				
Teaching aids for schools*	37.3	215.2	25.1%	18.3%
Instructional materials**	17.5	111.7	11.8%	9.5%
Minor repairs and regular maintenance	38.3	351.2	25.8%	29.9%
Student welfare	9.7	143.5	6.5%	12.2%
In-house teacher training	12.7	126.5	8.5%	10.8%
Utility	33.2	226.8	22.3%	19.3%
Total non-personnel cost	148.7	1,174.9	100.0%	100.0%
(c) Total recurrent cost	2,707	5,607		
Personnel	2,558	4,432	95%	79%
Non-personnel	148.7	1,174.9	5%	21%

Note:

* Teaching aids expenses refer to disposable items for office use, disposable items for teachers' use, disposable items for administering exams, and expenses involving students' projects.

** Instructional materials refer to disposable items for library, resource center, computer lab, and science labs.

Figure 4.1: Per-student recurrent cost of secondary schools in Malaysia, 2003 (RM/year)

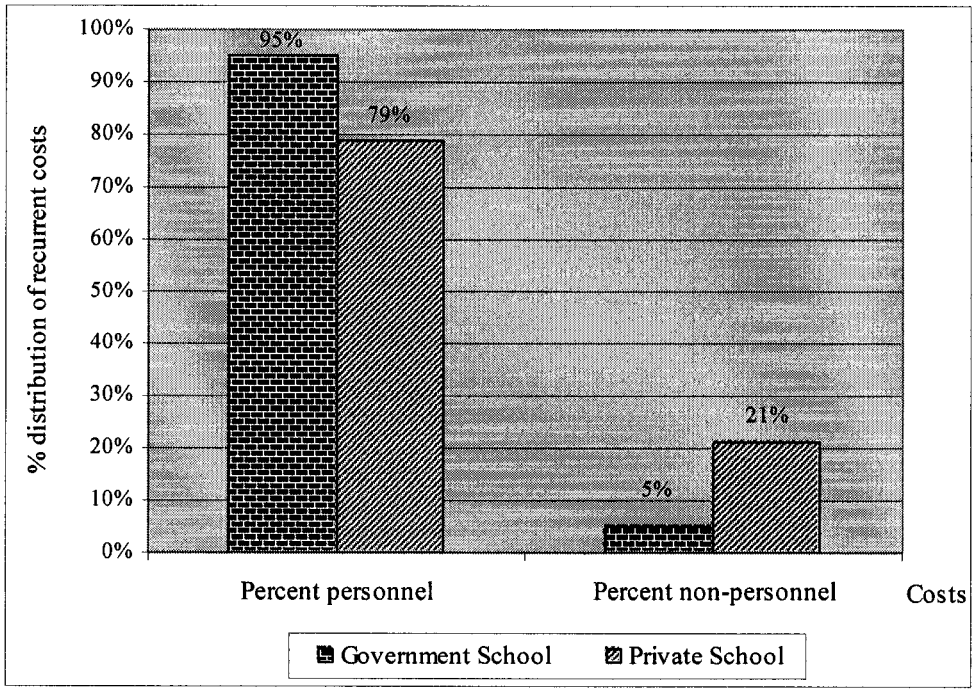

Figure 4.2: Per-student capital cost of secondary schools in Malaysia, 2003 (RM/year)

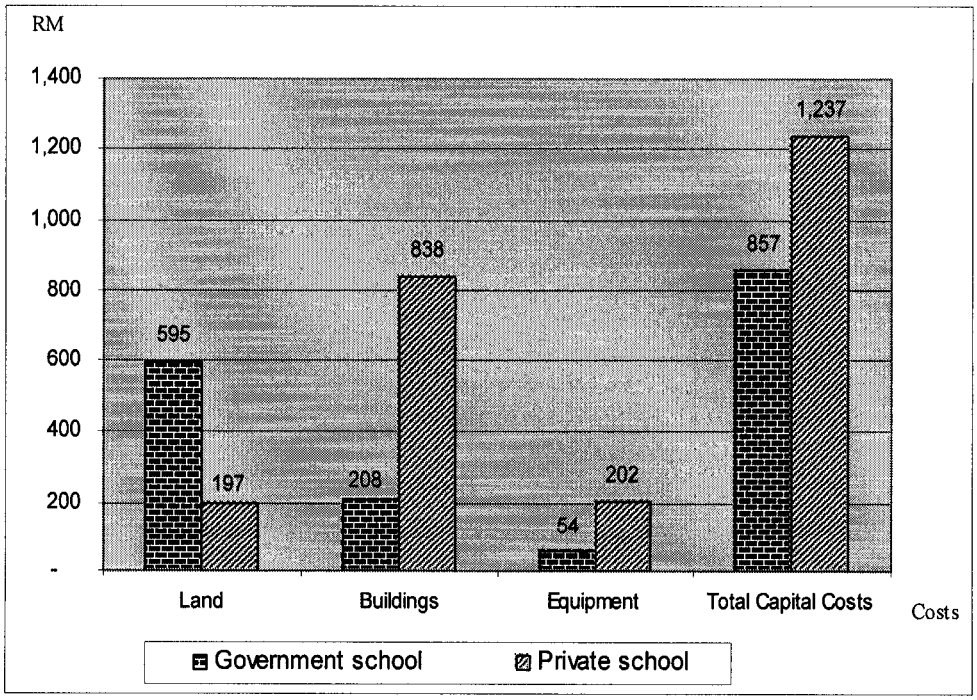

Table 4.5: Institutional costs of secondary schools in Malaysia, 2003 by type and by geographical zone (RM/year)

	Recurrent		Capital		Institutional	
	Govt sch	Private sch	Govt sch	Private sch	Govt sch	Private sch
North	2,922	8,391	743	-	3,665	-
	N=5	*N= 1*	*N= 4*	-	*N= 5*	-
East	3,412	6,538	147	3,743	3,559	10,281
	N= 3	*N= 1*	*N= 3*	*N= 1*	*N= 3*	*N= 1*
South	2,806	3,881	78	146	2,884	4,027
	N= 12	*N= 1*	*N= 11*	*N= 1*	*N= 12*	*N= 1*
Central	2,538	-	1,868	-	4,406	-
	N= 9	-	*N= 9*	-	*N= 9*	-
East Malaysia	2,258	4,317	1,271	531	3,529	4,848
	N= 7	*N= 2*	*N= 5*	*N= 2*	*N= 7*	*N= 2*

Table 4.6: Regressions on per-student recurrent cost of private and government secondary schools, 2003 (RM/student/year)

Independent variables:	[1]	[2]	[3]
Student-teacher ratio	-194.66**	-	2965.55**
	(30.49)		(649.59)
Enrollment##	-	453450.97**	288421.75**
		(85240.43)	(71632.58)
Private school	1640.37**	894.30	672.83
(Private =1)	(346.93)	(494.60)	(373.26)
School shift	312.55	282.88	235.29
(Double session = 1)	(195.20)	(215.57)	(161.85)
Average teacher salary	0.04**	0.05**	0.05**
	(0.01)	(0.01)	(0.01)
North zone@	159.63	697.11*	233.32
	(310.87)	(320.06)	(256.58)
East Zone@	54.53	209.48	-172.77
	(355.45)	(384.82)	(298.03)
South Zone@	-455.05	-59.93	-316.07
	(262.34)	(284.0)	(218.72)
East Malaysia zone@	-680.64*	43.77	-282.42
	(280.74)	(324.34)	(251.40)
Constant	4674.79**	274.29	2965.55**
	(597.23)	(504.42)	(649.59)
N	41	41	41
R-square	0.862	0.834	0.909

Note:
* Significant at the 5 percent level
** Significant at the 1 percent and 5 percent level
enrollment = 1/enrollment.
Figures in parentheses underneath [1] are standard errors
@ Reference category: Central zone

Determinants of recurrent costs

To examine the factors, which affect per-student recurrent cost among Malaysian schools, the determinant equations were estimated using the Ordinary-Least Squares method. Table 4.6 presents the regression results. The independent variables include: student-teacher ratio, enrollment per school (school size), private schools (dummy variable, with private schools = 1), school shift (dummy variable, with double-session = 1), average teacher salary, and four geographical dummy variables (dummy variable for the North, East, South, and East Malaysia).

According to the results shown in Table 4.6 [equation 1], when school size is not considered, after controlling for other factors, there are significant differences in per-student recurrent cost between private and government secondary schools. The "student-teacher ratio" variable, "private school" variable, and "average teacher salaries" variable were statistically significant at 1% level and 5% level. The equation [1] explained 86.2% of the variance in unit per-student recurrent cost among schools. Per-student recurrent cost increases as the "student-teacher ratio" decreases. It is interesting to point out that the coefficient of "private school" was positive, which indicates that after controlling for other factors, per-student recurrent cost of private schools had higher unit costs than government schools. Teacher salaries also increase with recurrent expenditures. It is also interesting to point out that after controlling for other factors, the "school-shift" variable was statistically insignificant, which means that neither single-session nor double-session of schooling has significant impact on per-student recurrent costs of secondary schooling, as shown earlier in the discussion following Table 4.2. However after including school size and excluding student teacher ratio in the equation [2], the findings become reversed.

After controlling for school size and teacher salaries, there are no significant differences between private and government schools. Also, in equation [3], after controlling for other factors such as school size, student teacher ratio, and average teacher salaries, there is no significant difference between private and government schools.

In sum, per-student recurrent cost, student teacher ratio, and school size are all highly correlated. The major finding of the current study is that differences in per-student recurrent cost are due mainly to student teacher ratio and school size. However, if student teacher ratio and school size are considered, there are no significant differences between private and government schools.

IV.3.2. Capital costs per student, 2003

Figure 4.2 displays per-student capital cost of secondary schools in Malaysia in 2003. Capital costs per student are equal to RM 1,237 in private schools and RM 857 in government schools. Per-student capital cost of private schools was 1.4 times of the amount that the government schools were spending. This may be explained by the fact that the majority of private schools are new schools when compared to government schools. One private school is a new school, established in 2002, with a small student enrollment and a large land area of six acres. In general, the private schools have relatively new physical facilities and equipment (for example, computers and technology peripherals) when compared to government schools (Loke etal, 1999).

Figure 4.2 also illustrates the variations in the per-student capital cost such as land, buildings, and equipment between the private schools and the government schools. With regard to the distribution of capital costs among input items, land costs claimed the

largest share of capital costs for government secondary schools. Land costs for private schools were about one-third (RM 197) of land costs of government schools (RM 595). Unlike the government secondary schools, buildings (i.e. physical facilities) claimed the largest share of capital costs for private secondary schools. Building costs for private schools was four times of building costs for government schools. Also, in equipment costs, the private schools spent 3.7 times of the equipment costs for government schools.

An analysis of the five geographical zones, presented in Table 4.5, reveals that there were large disparities in per-student capital cost among the private and government schools in these geographical zones. In private schools, there were significant differences between per-student capital cost in the South zone (RM 146) and the East Malaysia zone (RM 531) when compared to the amount of per-student capital cost in the East zone (RM 3,743). The per-student capital cost in the East zone has three times the national average of capital costs for private schools. The findings are based primarily on a new school with a relatively larger land area and lower student enrollment. Government schools in the Central zone spent more than twice of the national average of capital costs (RM 857), and had the highest capital costs among government schools in all zones.

The large variability in capital costs per student among private and government schools in the Central zone is to be expected, though as the market value of land varies immensely from one zone/state/area to another zone/state/area in Malaysia. As this study has acknowledged, the market price of land in the Central zone is very high in comparison to the other zones. In 2003, the market value of land in an urban area (Central zone) ranges from approximately RM 80 to RM 250 per-square foot, whereas for example, the market value of land in the South zone averages RM 4.60 per-square foot.

Additionally, costs of infrastructure/buildings vary tremendously according to the geographical zones because of the shipment mode, and specific conditions affecting the suitability of available land for building schools, as discussed earlier. Thus, huge disparities with respect to per-student capital cost might be anticipated and, in fact, have been documented by this field study.

Determinants of capital costs

To examine the factors, which affect per-student capital cost among Malaysian schools, the determinant equations were estimated using the Ordinary-Least Squares method. Table 4.7 presents the regression results. The independent variables include: enrollment per school (school size), private schools (dummy variable, with private schools = 1), school shift (dummy variable, with double-session = 1), four geographical dummy variables (dummy variable for the North, East, South, and East Malaysia), and land area per student (per square acre).

According to the results shown in Table 4.7, after controlling for other factors, there are significant differences in per-student capital cost between private and government secondary schools. The school size and geographical zones were the significant predictors in the determinants of per-student capital cost. The equation explained 85.2% of the variance in unit per-student capital cost among schools. As explained previously in the discussion regarding per-student recurrent cost previously, after controlling for other factors, the "school-shift" variable was statistically insignificant, which means that neither single-session nor double-session of schooling has a significant impact on per-student capital cost of secondary schooling, as shown in the

earlier Table 4.3. The major finding of the current study is that differences in per-student capital cost are due mainly to school size and location and not to type of schools.

IV.3.3. Institutional costs per student, 2003

As observed in Figure 4.3, the per-student institutional costs are equal to RM 6,844 in private secondary schools and RM 3,564 in government secondary schools. Compared to government schools, private schools spent more 92% on per-student institutional costs.

In private schools, the East zone documented the highest institutional cost, RM 10,281, when compared to other zones. Among government schools, schools in the Central zone incurred the highest per-student institutional cost, RM 4,406. This study documents clearly that, on average, there are significant differences in institutional costs between private and government secondary schools.

With regard to the distribution of per-student institutional costs among recurrent cost and capital cost categories, private schools spent more 107% on per-student recurrent costs than the amount government schools were spending. Private schools also spent more 44% on per-student capital costs than the amount government schools were spending.

In short, compared to government schools, private schools have: a) higher per-student recurrent cost; b) higher per-student capital cost; and c) higher per-student institutional cost.

Table 4.7: Regressions on per-student capital costs of private and government secondary schools, 2003 (RM/student/year)

	[1]
Enrollment[##] (school size)	903643.28*
	(385245.10)
Private school (Private =1)	-6065.72
	(4148.56)
School shift	-419.90
(Double session = 1)	(223.73)
North zone[@]	-1479.54**
	(341.34)
East Zone[@]	-2004.71**
	(364.84)
South Zone[@]	-1595.35**
	(274.97)
East Malaysia zone[@]	-744.80*
	(326.15)
Land area per-student[51]	19.28
(per-square acre)	(15.34)
Constant	1190.52**
	(365.29)
N	32
R-square	0.852

Note:
** Significant at p< 0.01
* Significant at p< 0.05
[##] [1] uses enrollment =1/enrollment
Figures in parentheses underneath [1] are standard errors
[@] Reference category: Central zone

[51] On average, per-student land area (in acre) is 0.009 for government secondary schools and 0.070 for private secondary schools. Author estimation is based on 31 government secondary schools and 1 private secondary school in the sample.

Figure 4.3: Per-student institutional costs of secondary schools in Malaysia by type (RM/year)

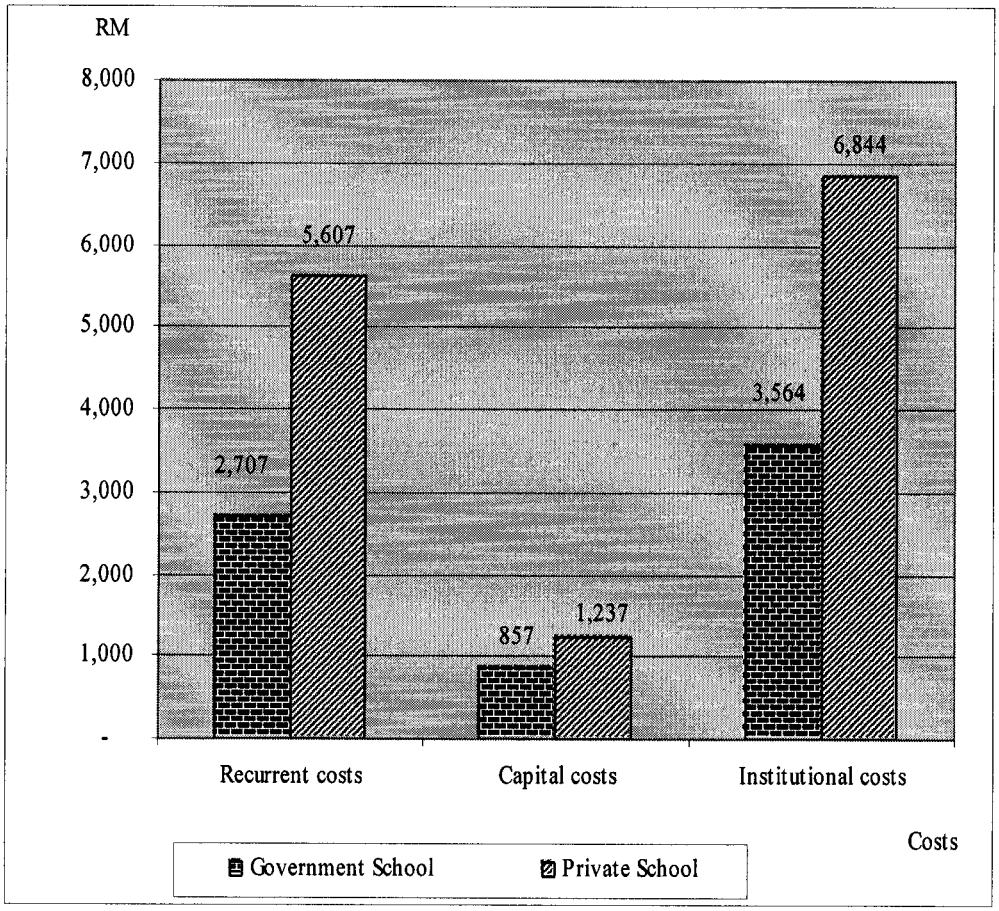

Table 4.8: Private resources to government and private secondary schools in Malaysia, 2003 (RM/year/per Form Two student)

	Amount		Distribution in (%)	
	Government schools	Private schools	Government schools	Private schools
	RM	RM	%	%
Direct private costs*				
a) Tuition:	0	**7,070**		
b) Non-tuition costs:				
School fees	**301**	(inclusive of tuition)		
i) Instruction related:**				
Textbooks	94	280	11%	22%
Workbooks	238	238	29%	19%
Writing supplies	356	538	43%	42%
Copies	138	220	17%	17%
Total instruction-related	**826**	**1,276**	100%	100%
ii) Non-Instruction:***				
Uniform (school)	170	251	4%	3%
Uniform/sportswear (extra-curricular activities)	79	70	2%	1%
Shoes (school)	157	196	3%	2%
Shoes (extra-curricular activities)	123	430	3%	5%
Trip	71	205	2%	2%
Trip (extra-curricular activities)	48	88	1%	1%
Lunch and snack (school)	429	918	9%	10%
Lunch and snack (extra-curricular activities)	461	741	10%	8%
Medical insurance/expenses	806	2,307	17%	25%
Insurance (extra-curricular activities)	79	219	2%	2%
Pocket money	940	1,254	20%	13%
Pocket money (extra-curricular activities)	367	570	8%	6%
Tutoring cost (non-school-related)	956	2,125	20%	23%
Total non-instruction-related	**4,686**	**9,374**	100%	100%
A) Total direct costs	**5,813**	**17,720**		
B) Total household contribution @	**424**	**3,529**		
TOTAL Private resources to schooling	**6,237**	**21,249**		

Notes:

* RM/student/school year

** Consists of expenditures on textbooks, workbooks, writing supplies, and copies

*** Consists of expenditures on uniforms, shoes, school trip, lunch, snack, medicine, and pocket money

@ Consists of contributions in cash and in-kind to school and teachers (RM/household/school year)

IV.3.4. Private resources, 2003

Table 4.8 presents the per-student private resources for two categories: direct private costs and household contributions.

Direct private costs

Direct private costs are divided into two components: tuition costs and non-tuition costs. On average, tuition costs in the private secondary schools are RM 7,070 for the school year, 2003. On the contrary, government schools charge no tuition costs. Thus, when tuition costs were included, private school parents spent RM 17,721 per child on direct private costs in 2003, compared to an average of RM 5,813 by government school parents.[52]

Non-tuition costs are of two distinct types: a) *instruction-related costs* (such as parental expenditures on textbooks, workbooks, writing supplies, and copies); and b) *non-instruction-related costs* (such as parental expenditures on school and extra-curricular uniforms, school and extra-curricular shoes, trips, lunches, medical insurance, and pocket money). The results show that private school parents spent much more on both types of expenses than government school parents and, in particular, spent more on non-instructional costs than government school parents.

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[52] The entrance fees and tuition fees for private schools vary greatly from one school to the other.

a) Instruction-related costs

Private school parents spent RM 1,276 when compared to government school parents RM 826 on per-student instruction-related items. Thus, compared to government schools, private schools spent 54% more than government schools did on instruction-related costs.

The private school parents devoted 22% to textbooks while government school parents devoted only 11% on the textbooks. Parents in private schools spent more on textbooks compared to parents in government schools. One explanation for this difference is that students in government schools receive free textbooks if they are eligible, according to the parents' level of income. Private school parents, however, spent less on workbooks (19%) than their counterparts in government schools (29%).

One interesting observation in the instruction-related costs is related to the high proportion spent on writing supplies. The private school parents spent 42% of the instruction-related costs for the writing supplies of their children, while the government school parents spent 43% of a similar item for their children.

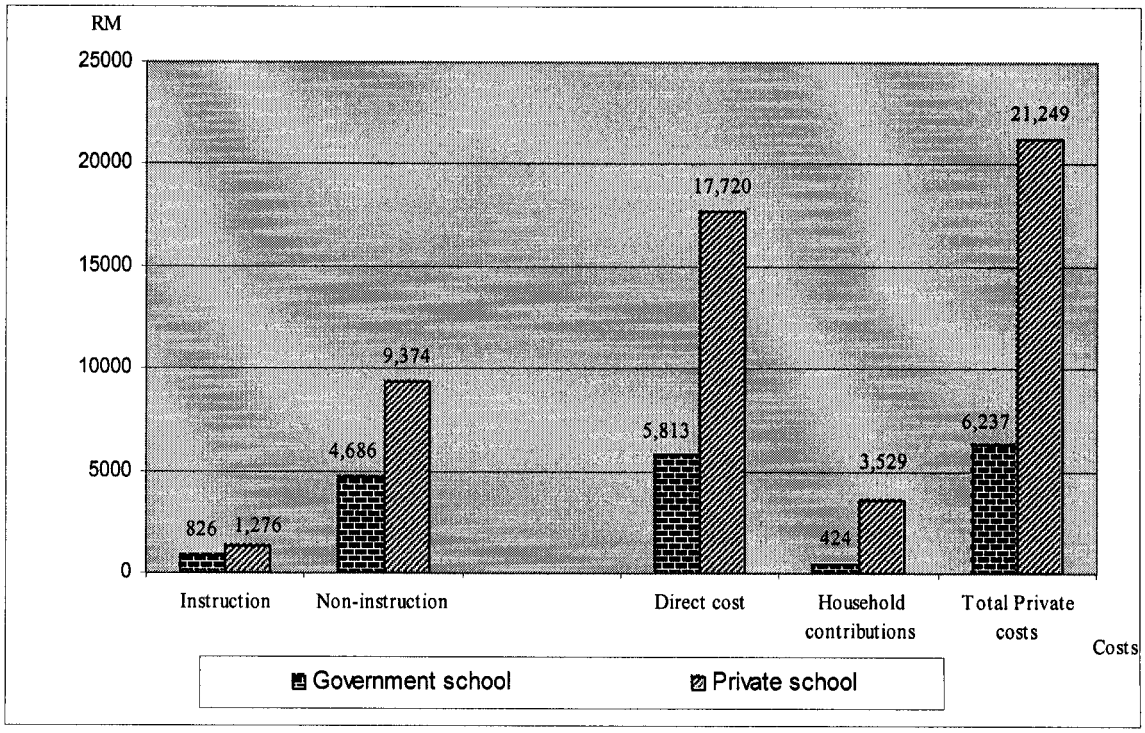
b) Non-instruction- related costs

In non-instruction-related items, parents in private schools spent 2 times more than parents in the government schools, i.e. RM 4,686 and RM 9,374, respectively. For the parents in the private schools, most of the costs were devoted to medical insurance or medical expenses (25%) and tutoring costs (23%), followed by pocket money (13%). The major items of non-instruction-related costs, found in private schools, (i.e. medical insurance and tutoring costs) were lower in government schools. In contrast, for the

parents in the government schools, among the non-instruction related items, most of the costs were taken up by tutoring costs (20%) and pocket money (20%), followed by medical insurance or medical expenses (17%).

Both private and government secondary school parents spent a substantial amount, more than 20% of total non-classroom instructional costs, on the tutoring costs for a child in Form Two. This study verifies that all parents do invest a substantial amount for tutoring costs for Form Two children at the secondary level in both private and secondary schools in Malaysia. The proportion spent on tutoring costs is quite significant but not surprising, though, since a Form Two child is already preparing for the national standardized examination set for Form Three in the following school year. In fact, for a student in the government schools, this stage is a vital point; a Form Two child must excel in order to be fully prepared to achieve excellent grades on the national standardized examination and to be considered for either for a better government secondary schools (based on higher student scores on national standardized examination in Form Five) or to an excellent residential government school.

Figure 4.4: Private resources to secondary schools in Malaysia, 2003 by school type (per Form Two student)



Household contributions

Table 4.8 also shows the household contributions for the private and government secondary schools. On average, parents from private schools spent more on household contributions (RM 3,529) than parents in the government schools (RM 424). Contributions of private school parents were 8.3 times higher than that of parents' contributions in government schools. Given the characteristics of private school parents listed in Table 4.1, this phenomenon might be anticipated, as private school parents generally are wealthier and therefore have more means to contribute to the secondary education of their children.

Similar to direct private costs, there is also a comparable pattern of large disparities in household contributions between the private and government secondary schools.

Private resources per student

Figure 4.4 presents the total private resources of schooling for a Form Two child. In the school year of 2003 on average, parents in the private schools spent RM 21,249, which is more than 3.4 times higher than the amount spent by government school parents, namely RM 6,237. Compared to government schools, parents in the private schools spent 341% of the amount of their government counterparts.

Thus, the current study documents that private resources are a significant source of total costs of education for both private and government secondary schools. At the same time, however, the private resources reveal a significant source of educational inequality and merit worth further study in order to develop all socio-economic sectors and to enable the country to compete globally in a knowledge-based world economy, it appears that there is a continuing need for the government to provide adequate educational opportunities for all children, particularly secondary school students.

IV.3.5. Total costs per student, 2003

In order to properly compare the costs of schools private and government schools, we need to examine the total resources devoted to these schools from all sources. Tables 4.9 and 4.10 present the total costs per student, based on data derived from institutional

costs and private resources. Thus, for Form Two students, the total costs per student can be taken to be the sum of recurrent costs per student, capital costs per student, and non-fee private resources per student. In this study, household contributions to teachers and to schools are in the form of cash contributions. In order to avoid double counting in the computation of the total costs per student, school fees, and household contributions are not included because they are used to support capital costs and/or recurrent costs.

According to Table 4.9, total costs per student in the private schools are RM 17,494 and total costs per student in the government schools are RM 9,076. The total costs per student of private schools were 1.93 times more than their government counterparts. This study reveals that educating a Form Two student in the private schools costs 93% more than educating a Form Two student in the government schools. This finding also highlights the educational disparities and inequities that exist between both private and government educational systems.

Private school parents spent more on education than government school parents in the school year 2003. Thus, with respect to private resources for schooling, private school students have about double the amount of money spent on their education compared to government school students. Indeed, these findings are consistent with the findings of Tsang and Taoklam (1992) regarding primary schools in Thailand, in which, significant private resources of private schools were required to cover substantial direct private costs.

Table 4.10, row (1) presents total costs per student, RM 17,494 in private secondary and RM 9,076 in government secondary schools. It shows that the total costs per student in private schools were 93% more than the amount of government schools. This study also reveals that land costs in areas like Kuala Lumpur, the capital of Malaysia,

(which represents the Central zone) can vary tremendously and, thus, can cause a bias in costs comparisons. Thus, row (2) eliminates the bias in costs comparisons due to land costs by excluding the land cost item. Cost differences between the types of schools become smaller. When compared to government schools, the per-student total costs of private schools were equal to 104% more than that of government schools.

Table 4.9: Per-student total costs of government and private secondary schools in Malaysia, 2003 by type (RM/student/school year)

	Amount (per-student)	
	Government School	Private School
Institutional	3,564	6,844
Recurrent	2,707	5,607
Capital	857	1,237
Private costs*	5,512	10,650
Total costs	9,076	17,494

Table 4.10: Per-student total costs of government and private secondary schools in Malaysia, 2003 by type (RM/student/school year)

	Government School	Private School
(1) Total cost per student*	9,076	17,494
(2) Total cost per student, excluding land cost**	8,481	17,297
(3) Total non-personnel instructional cost per student @	881	1,603

Note:

* This is equal to the sum of per-student recurrent cost, per-student capital cost, and per-student non-fee direct private cost.

** This is equal to per-student total cost minus per-student land cost.

@ This is equal to the sum of per-student recurrent costs of instructional materials (teaching aids and instructional materials) and per-student instructional related direct private cost (textbooks, workbooks, writing supplies, and copies).

Finally, row (3) presents the total non-personnel instructional costs per student. These are equal to the total amounts of school and parental expenditures on non-personnel instructional inputs (such as instructional materials, teaching aids and school supplies, and per student instructional related direct private costs). Compared to

government schools, per-student non-personnel instructional cost of private schools was 82% more than the amount of government schools. These costs are vital as they represent inputs that are related to educational quality (e.g. Tsang and Taoklam, 1992). Thus, with respect to expenditures on instructional inputs, private schools students are more advantaged than government school students as documented in row (3).

Source of funding

In Malaysia, private resources are an important part of financing of education. Household make direct expenditures on children's education, such as spending on tuition, and other school educational fees, instructional-related expenses, such as textbooks, workbooks, along with non-instruction-related expenses, such as uniforms, private lessons, tutoring costs (non-school-related), etc. Data presented in Figure 4.5(a) and Figure 4.5(b) demonstrates that while private schools receive no aid from the government, financial resources for the daily operations of private schools come almost, if not entirely from the households. In the government schools, however, despite the aid from the government, Figure 4.5(b) shows that households spent about 2.2 times more on financial resources for the daily operations of government schools.

Figure 4.5 (a): Source of funding of private and government secondary schools in Malaysia, 2003 (RM/student/school)

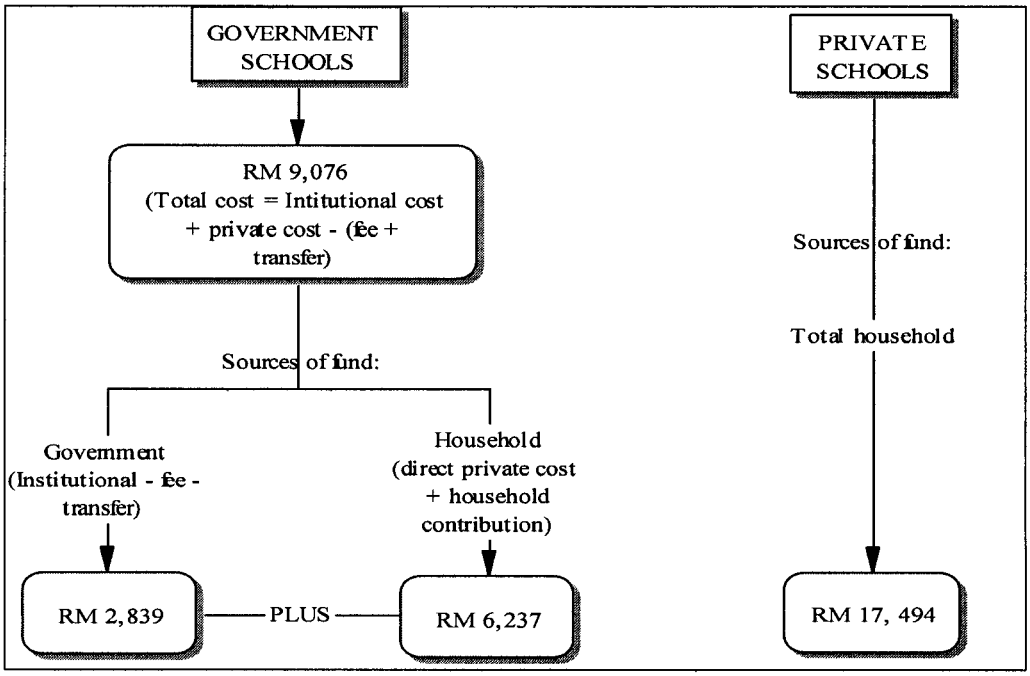
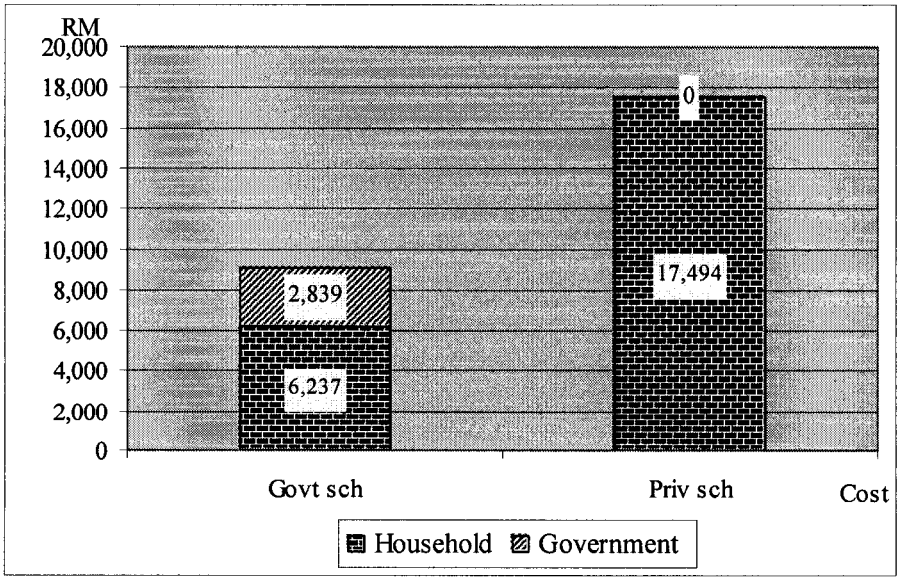


Figure 4.5 (b): Source of funding of private and government secondary schools in Malaysia, 2003 (RM/student/school)



IV.4. Private resources for schooling

How do the private resources for secondary education vary by school type, level of household income, and geographical zone?

Section IV.3. addresses the above research question. Table 4.8 presents data on the two categories of private resources by type of school. It provides information on the amount for each item of private resources and on the percentage distribution among items in each category. The current study's analysis of the magnitude of private resources required to educate children in both private and government schools reveals two observations: one, that private resources vary significantly between private and government secondary schools and are much higher for private than government schools; and two, that private resources represent significant amounts when compared to overall school expenditures and therefore have a major impact on the educational programs possible in both private and government schools as shown earlier.

IV.4.1. Private resources of schooling, 2003

Figure 4.6 presents the non-tuition spending incurred by parent(s)/guardian(s) for a child of Form Two in 2003. Private school parents spent about 1.93 times (RM 10,650/ 5,512) the amount spent by government school parents directly on the non-tuition items of students' schooling. While government schools are tuition-free, private schools tuition charges an average of RM 7,070. Thus, after tuition has been added, the ratio between private and government schools' spending on private resources increases to 3.4 times.

On instruction-related expenses, such as textbooks, workbooks, and school supplies, private school parents spent more than 54% of the amount that government schools parents did. Furthermore, on non-instruction related expenses, such as school and extra-curricular uniforms, school and extra-curricular shoes, trips, lunches, medical expenses, and pocket money, private school parents spent (RM 9,374) almost twice the amount spent by government school parents (RM 4,686).

The total private resources shown in Table 4.8 can be compared to the per-student total school expenditure (sum of recurrent and capital costs) of secondary schools in Malaysia in Table 4.4. Thus, total private resources represent 32% (RM 6,844/21,249) of average per student school expenditures for private schools and 57% (RM 3,564/6,237) of average per student school expenditures for government schools. For all schools, the ratio of total private resources to average per-student school expenditures is 2.3 (RM 8,938/3,860), indicating that private resources constitute a very significant economic source of support for all secondary schools in Malaysia.

Figure 4.6: Instruction-related and non-instruction-related items of government and private secondary schools in Malaysia, 2003 (RM/student/year)

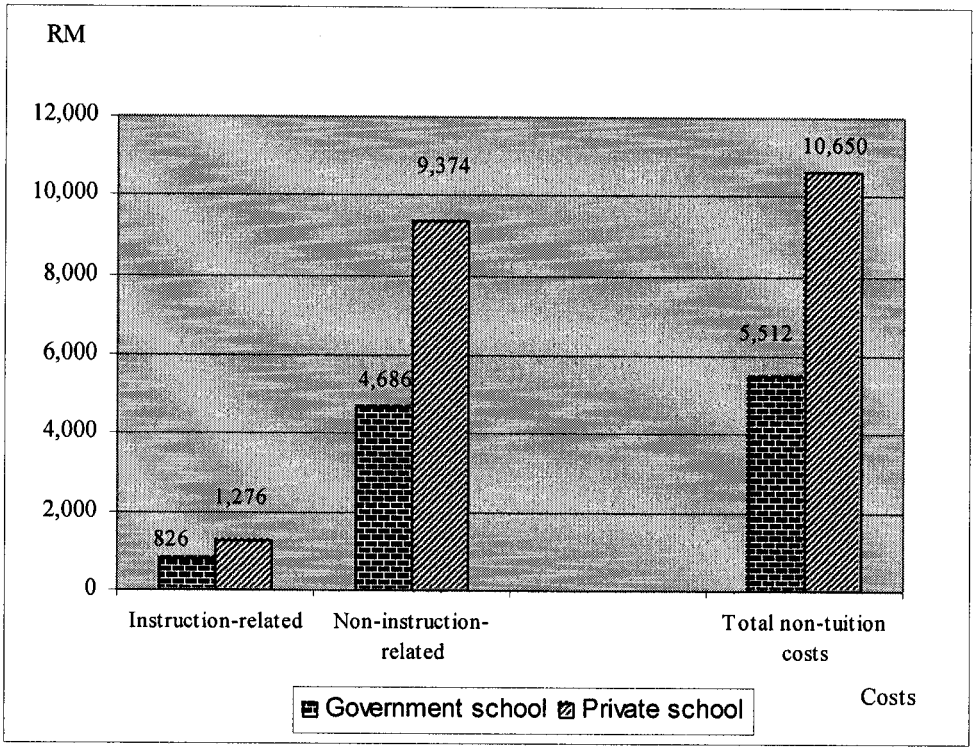


Table 4.11 exhibits information on the two categories of private resources by type of school for students of different income groups. Graphically, this table can be shown as Figure 4.7. Private resources for schools vary with income groups. The results show that both total direct private costs (solid line) and household contributions (dotted line) display an upward trend. The highest income level in the third group (RM 5,000 and above) made the largest contributions to school and paid the highest direct private costs. Additionally, the lower income families paid the least direct private costs and made the lowest household contributions. These observations hold true for both, private and government secondary schools.

The spending level in secondary schools, both private and government demonstrates the large disparities in the direct private costs. This indicates that more affluent families, i.e. higher income, wealthier families, spent more direct private resources on secondary education, than lower income and poorer families who had fewer financial resources to offer in paying for direct private resources.

Table 4.12 shows information on the two categories of private resources by type of school for students of different geographical zones. Graphically, this table can be displayed in Figure 4.8. The results show that private resources vary significantly by geographical zones. There were huge variations for direct private costs and household contributions among the geographical zones in the private schools although there was no data available in the East zone for direct private costs in the private schools. On the other hand, the variations for direct private costs and household contributions for the government schools were relatively quite small. An analysis of geographical zones level, as presented in Table 4.8, reveals that government schools in the North zone have the highest direct private costs followed by highest household contributions; and private schools in the Central zone had the highest direct private costs and highest household contributions.

Table 4.11: Private resources to government and private secondary schools in Malaysia, 2003 by income group and type

Income Group	Direct cost		Household contributions		Total Private Costs		Total Private Costs (minus parents contribution & tuition fees)	
	Govt sch [1]	Private sch [2]	Govt sch [3]	Private sch [4]	Govt sch [5]	Private sch [6]	Govt sch [7]	Private sch [8]
All	5,813	17,720	424	3,529	6,237	21,249	5,512	10,650
First income group	3,674	11,530	239	896	3,914	12,426	3,410	8,472
Second income group	6,716	13,528	509	2,117	7,225	15,644	6,399	8,563
Third income group	9,735	20,771	725	4,385	10,461	25,156	9,373	12,407

Note:
RM per school year
First group: N= 295 N= 14
Second group: N= 97 N= 20
Third group: N= 153 N=76
Income group:
(a) First income group: RM 1000 and below
(b) Second income group: RM 3000 - RM 4999
(c)Third income group: RM 5000 and above

Figure 4.7: Trend line for private resources to government and private secondary schools in Malaysia, 2003 by income group and type

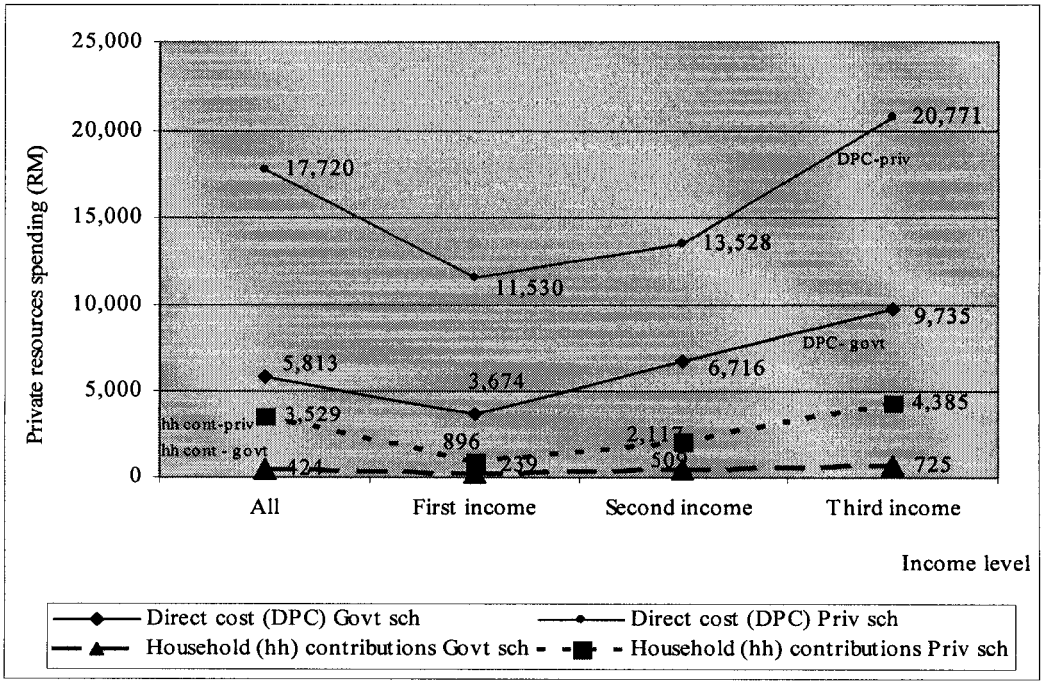
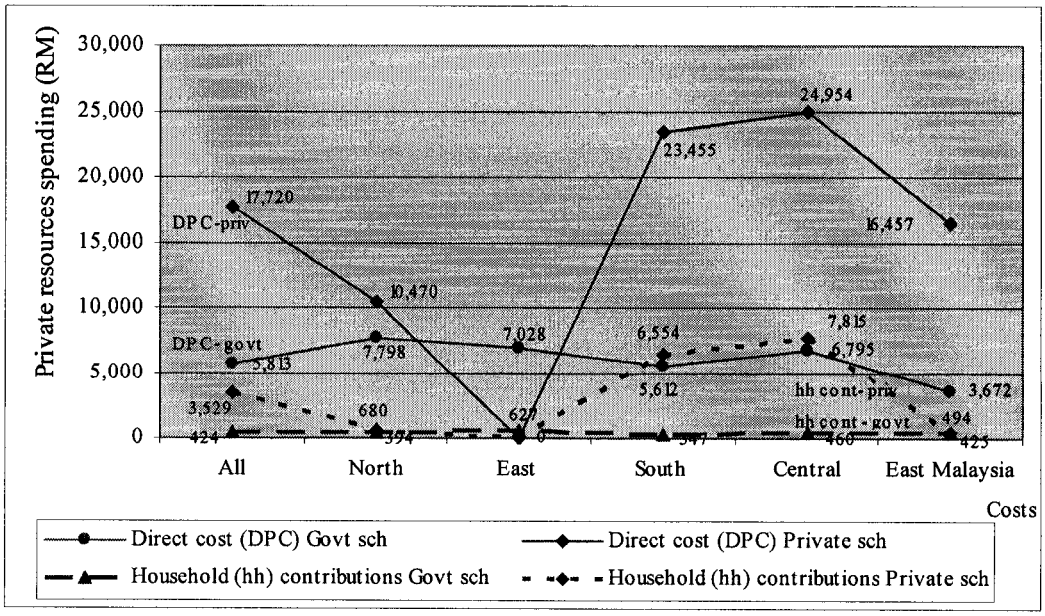


Table 4.12: Private resources to government and private secondary schools in Malaysia, 2003 by regional zone and type

Geographical zone	Direct cost		Household contributions		Total Private Costs		Total Private Costs (minus parentscontribution& tuition fees)	
	Govt sch [1]	Private sch [2]	Govt sch [3]	Private sch [4]	Govt sch [5]	Private sch [6]	Govt sch [7]	Private sch [8]
All	5,813	17,720	424	3,529	6,237	21,249	5,512	10,650
North	7,798	10,470	394	680	8,192	11,150	7,454	8,401
East	7,028	-	627	-	7,655	-	6,630	-
South	5,612	23,455	347	6,554	5,959	30,010	5,332	14,195
Central	6,795	24,954	460	7,815	7,255	32,768	6,501	14,644
East Malaysia	3,672	16,457	425	494	4,097	16,951	3,396	8,735

Note:	Govt sch	Private sch
North zone:	N= 75	N= 30
East zone:	N= 45	N= 0
South zone:	N= 160	N= 30
Central zone:	N= 145	N= 20
East Malaysia zone:	N= 120	N= 30

Figure 4.8: Trend line for private resources to government and private secondary schools in Malaysia, 2003 by regional zone and type



IV.5. Household contributions, 2003

How much are household contributions for secondary education and how do households allocate their overall resources?

This section IV.3.2. addresses the above research question. Table 4.8 presents the household contributions for secondary education. On average, parents from private schools spent more in household contributions (RM 3,529) than parents in the government schools (RM 424). The household contributions show that private school parents contributed 8.3 times more than government school parents. This situation might be anticipated, though, since, in general, private school parents are wealthier families.

Further analysis on how Malaysian parents allocate their resources within and between cost categories indicates several interesting findings on non-tuition costs, as shown earlier in Table 4.8. Even though, on average, private school parents spent more than government school parents in per-student direct private costs, a sharp contrast was found in terms of distribution of percentages in the total direct private costs. On the average, private school parents devoted relatively less, i.e. 7.2% (RM 1,276/17,720) on instruction-related items, such as textbooks, workbooks, writing supplies, and copies than the government school parents, i.e. 14.2% (RM 826/5,813) in their total direct private costs. It may be noted that some of the tuition costs by some private schools contained items that were actually non-tuition spending, such as textbooks. Thus, the amount of non-tuition spending reported by private schools may suggest a little lower spending level and may be adjusted upward while tuition costs may suggest a little higher level (in amount) and may be adjusted downward. On average, private school parents also

allocated less, i.e. 53% (RM 9, 374/17,720) on non-instruction-related items, such as uniforms, shoes, trips, lunches and snacks, medical insurance, pocket money, and tutoring costs, compared to government school parents, i.e. 81% (RM 4,686/5,813) in their total direct private costs of schooling.

Nevertheless, private school parents allocated almost 40% of the total direct private costs for their children's tuition costs in attending private schools, while government school parents pay no tuition costs and only pay little amount for their children's educational fees in attending government schools.

IV.6. Economic burden of private resources

What is the level of economic burden for different social groups?

This section IV.3.3 addresses the above research question. Tables 4.11 and 4.12 present the economic burden of households for secondary education in 2003. As indicated in previous literature (for e.g. Tsang and Kidchanapanish, 1992), it is essential to assess the level of economic burden of private resources to education with respect to equity issues among social groups. Table 4.11 displays information on economic burden by type of school for different social groups. In this study, the measure of economic burden is defined by household educational spending as a percentage of total household spending.

On the average, for parents of private school students, the total economic burden of private resources to schooling amounted to 28.46% as compared to 11.11% for parents of government school students. The highest income group had the lowest economic

burden. Compared to the highest-income group, the economic burden was heavier for the lowest-income families, but at the same time, they recorded less direct private resources to spend on their children's education, in RM per year. Higher income families had significantly lighter economic burdens, whether their children were enrolled in either private or government schools. Thus, even though higher income families devoted more private resources to education, such spending caused less financial strain for them.

The ascending ranking in economic burden varies for parents of students in the private and government secondary schools as shown in Table 4.12. For example, with regard to geographical zones, among the private schools, the ascending ranking was East Malaysia, North, South, and Central. On the other hand, in the government schools, the ascending ranking was East, East Malaysia, North, South, and Central.

Additionally, as shown in Table 4.13, according to ethnicity, in the private schools, the ranking from lowest to highest economic burden for households was Other, Peribumi, Malay, Chinese, and Indian. However, for the government schools, the ranking from lowest to highest economic burden for households was Malay, Other, Chinese, Indian, and Peribumi.

Table 4.13: Private resources to secondary education as a percentage of household expenditures, Malaysia, 2003

Income level	Total direct private cost as % of household expenditures (A)		Total household contribution as % of household expenditures (B)		Total private costs as % of household expenditures (C)	
	Govt sch [1]	Private sch [2]	Govt sch [3]	Private sch [4]	Govt sch [5]	Private sch [6]
Entire sample	10.4	24	0.71	4.46	11.11	28.46
Household income:						
First income group	10.61	26.93	0.65	2.28	11.26	29.21
Second income group	10.72	25.35	0.89	4.91	11.61	30.26
Third income group	9.93	23.11	0.7	4.74	10.63	27.85
Zone:						
North	10.3	27.74	0.48	1.5	10.78	29.24
East	8.63	-	0.84	-	9.47	-
South	10.93	27.55	0.6	7.8	11.53	35.35
Central	11.41	27.91	0.85	9.8	12.26	37.71
East Malaysia	9.38	14.11	0.76	0.5	10.14	14.61
Ethnicity:						
Malay	10	18.9*	0.7	0.05*	10.7	18.95
Chinese	10.65	24.69	0.71	4.55	11.36	29.24
Indian	11.73	24.24*	0.75	9.14*	12.48	33.38
Peribumi	11.77	11.9*	0.84	1.13*	12.61	13.03
Other	11.51*	12.95*	0.19*	0*	11.7	12.95

Note:
(C) Sum of columns (A) and (B) according to respective types of school
* Number of observations are less than 10

IV.7. Cost differences in 1996 and 2003

Are there significant differences in schooling costs in 1996 and 2003 for government schools?

This section attempts to make some comparisons in the per-student recurrent spending in secondary government schools.

Some precautions should be made regarding the differences between the 1996 and 2003 years. Brief characteristics of the two studies are summarized in Table 4.14 below.

Table 4.14: Characteristics of secondary government schools in Malaysia, 1996 and 2003

Characteristics	1996*	2003
School sample	122 (rural and urban)	36 (urban)
Households sample	980	650
Geographical zone	5 zones	5 zones
Student-teacher ratio	18.2	17.0
Average teacher salary (RM/year/teacher)	RM 24,594	RM 38,540

Note:
All costs in 1996 have been converted into 2003 constant price using the Consumer Price Index (CPI);
* Source: MoE, 1996

Table 4.15: Per-student costs in government secondary schools in 1996 and 2003

Costs	1996*	2003	Ratio of 2003 to 1996
	RM	RM	RM
Recurrent	1,328	2,707	2.0
Personnel	1,229	2,558	2.1
Non-personnel	99	149	1.5
Private resources for schooling	2,247	6,237	2.8

* Source: MoE (1996)

Table 4.15 presents the per-student costs in government secondary schools in 1996[53] and 2003. Per-student recurrent spending in 1996 was RM 1,328, compared to RM 2,707 in 2003. Over the period of seven years, the per-student recurrent spending has increased substantially by 104%.

Comparisons were made in government personnel costs and non-personnel costs in the year 1996 and the year 2003. In 1996, RM 1,229 was spent on the per-student personnel cost compared to RM 2,558 in 2003. There was an increase of 108% between 1996 and 2003 in per-student personnel cost.

One plausible explanation for the increase of per-student personnel cost was due to an increased of average teacher salary by 1.58 times between 1996 and 2003. This is primarily due to the impact of two government policies on the salary package of government personnel in 2002. *One* was the government's decision to raise existing salaries by 10% in January 1, 2002, according to earlier salary package that was introduced in January 1, 1992. At the time, the Malaysian government introduced the salary package known as *Sistem Saraan Baru* (*SSB*).

Second, later in the same year, November 1, 2002, government introduced another salary package that replaced the 1992 salary package as amended in January 1, 2002 for all government personnel, namely, *Sistem Saraan Malaysia (SSM)*.[54] The *SSM* salary package involves 10% raise in salaries and changes in job grading of personnel with related increases in salary and non-salary of personnel (such as employment benefits and supplementary benefits). New assessment of government personnel through examinations

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[53] All costs in 1996 have been converted into 2003 constant price using the Consumer Price Index (CPI).

[54] Available [on-line]: www.jpa.gov.my/pekeliling/pp02/. Retrieved date: March 27, 2004.

and courses, known as *Penilaian Tahap Kecekapan* was introduced. The purpose of the 2002 salary package is to boost the competency level of all public sector personnel in line with Malaysian's policy of creating a knowledge-based, creative, and innovative society that is competitive globally.

The 1996 study also recorded the private resources for schooling as RM 2,247 for lower secondary in 1996 compared to RM 6,237 for a typical Form Two student in 2003. Findings in the 2003 study marked 2.8 times more in the private resources for schooling than findings in the 1996 study. Again the comparison should be interpreted with caution since the private resources of schooling computed in 1996 are for lower secondary students generally, whereas in 2003, these are specifically referring to Form Two students.

IV.8. Summary of findings

Table 4.16 presents the summary of per-student costs in private and government secondary schools in Malaysia. There is a significant difference in per-student costs in secondary education between private and government schools in the school year 2003. Private schools spent more than government schools in recurrent costs, capital costs, institutional cost, direct private costs, household contributions, total private resources, and total costs.

Table 4.16: Summary on per-student costs in government and private secondary schools in Malaysia, 2003

	Govt sch	Priv sch	Ratio of govt to priv	Ratio of priv to govt
	[1]	[2]	[3]	[4]
Recurrent cost	2,707	5,607	0.48	2.07
Capital cost	857	1,237	0.69	1.44
Institutional cost	**3,564**	**6,844**	0.52	1.92
Direct private cost	5,813	17,720	0.33	3.05
Household contributions	424	3,529	0.12	8.32
Total private resources	**6,237**	**21,249**	0.29	3.41

Recurrent spending in this study reveals that, on average, private schools spent less on personnel inputs (79%) than their counterparts in government schools (95%). Private schools, however, spent more on non-personnel inputs (21%) than their counterparts in government schools (5%).

On capital spending, however, this study demonstrates that private schools generally spent more on inputs such as buildings and equipment, but less on land per student than the government schools.

Further, in private resources for schooling, this study shows that large percentages of private resources for schooling are used to cover the non-instruction-related costs in both, private and government schools, 44% and 75%, respectively. In the instruction-related costs, on the other hand, 6% and 13% of private resources for schooling are used to cover the instruction-related items in the private and government schools, respectively.

On average, direct private costs in private schools were higher than those in government schools, primarily because tuition fees constituted the major source of income for these schools (see Table 4.8.). With regard to household contributions, this

study reveals that household contributions were 8.3 times higher for private schools than government schools. A larger percentage (17%) of household contributions were found in the private resources for schooling in the private schools when compared to household contributions in the private resources of schooling in the government schools (7%).

Compared to the 1996 study of government schools by the Ministry of Education on the private resources of schooling, one striking finding of this study is that costs to households have increased from RM 2,247 in 1996 to RM 6,237 in 2003. This represents a significant increase of 2.8 times more of private resources for schooling in only seven years, from 1996 to 2003. Nevertheless, the findings should be interpreted with caution since the comparisons were not made on the basis of "apple-to-apple" items' comparisons as such; the earlier study's focus was for lower secondary students and the current study's focus was Form Two students. The considerable differences found in the private resources for schooling are worth further attention of policy makers as the findings suggest significant educational disparities and inequalities at this level of schooling.

For both types of schools, the burden of the direct private costs and household contributions decreased with increased family income. Higher income families had significantly lighter economic burdens regardless of whether they send their children to private or government secondary schools.

CHAPTER V - CONCLUSIONS AND POLICY IMPLICATIONS

Introduction

The chapter is comprised of three sections: the *first section* summarizes the key findings for the five research questions addressed by this dissertation, followed by a brief discussion of specific limitations of the field study. The *second section* discusses the findings of this study with their implications for educational policies in Malaysia. Finally, the *third section* presents several recommendations and suggestions for further research.

V.1. Summary of key findings

In the *first section*, five research questions were addressed and the findings are summarized accordingly.

First, compared to government schools, private schools in 2003 spent: a) a higher per-student recurrent cost; b) a higher per-student capital cost; c) a higher per-student institutional cost; d) higher private resources for schooling of Form Two students; and e) a higher per-student total cost.

Second, private resources for schooling vary significantly between private and government secondary schools. Private school parents spent 3.4 times more on private resources for schooling than government school parents. Private resources constitute a very significant source of economic support for secondary education when compared to per-student school expenditures. The current study also finds that direct private costs increase with income level. Families from higher socio-economic backgrounds spent

more direct private resources on secondary education than families from lower socio-economic backgrounds. Moreover, there were wide variations for the direct private costs and the household contributions among the geographical zones for both private and government secondary schools.

Third, private school parents spent much more on household contributions than the amount spent by their government school counterparts. Private school parents devoted two-thirds of direct private costs to tuition, but less to instruction-related and non-instruction-related inputs i.e. workbooks, and writing supplies, trip expenses, etc. These findings could provide some explanation, in part, why private school parents prefer to send their children to private schools despite the expense of comparatively high tuition costs. Private schools have also partly covered the instruction-related inputs and non-instruction-related inputs that would otherwise be borne by the private school parents.

Fourth, the economic burden of the direct private costs and household contributions decreased with increased family income, regardless of whether children were enrolled in private or government secondary schools. Higher income families had lighter economic burdens.

Fifth, there was a marked increase in per-student recurrent spending for government schools between 1996 and 2003, partly due to two major changes in the Malaysian government policies on the salary package offered to its personnel in 2002 from 1996 to 2003 in secondary education. This result should be interpreted with caution due to several limitations it has.

Limitations

Limitations encountered by this study are as follows. ***First***, this study is focused primarily on one segment of Malaysia's education system: namely, regular government secondary schools and regular private secondary schools in urban settings in five geographical zones. Accordingly, other schools such as technical schools, vocational schools, sports schools, religious schools, and special education schools are not included in the sample. ***Second***, although this is a national study with a representative sample, not all states are explored. A more extensive study with more research funding could examine all the states. ***Third***, this study focuses on urban setting. Thus, rural studies would be of appropriate for further research, building on the current study's research model.

V.2. Policy implications

This *second section* highlights several main issues that are relevant to the educational policy of secondary schools in Malaysia.

Private schools serve a small percentage of students in secondary schools in Malaysia who are mainly from well-to-do families in urban areas. The ethnic background of the majority of students enrolled in private schools is Chinese and, in contrast, the ethnic background of the majority of students enrolled in government schools is Malay. This variation in ethnic distribution is highly significant. Will increased education privatization lead to even more segregation between the two major ethnic groups in Malaysia? There is a legitimate issue about national unity. There is a need to study further whether privatization exacerbates segregation. The concern of ethnicity

differences in the Peninsular Malaysia receives wide attention, e.g. Ratnam (1965) and Abdullah (1990). Abdullah in his study on ethnic fertility differentials in Peninsular Malaysia, signifies the problem pertaining to ethnicity disparity that exists:

> "...almost any measure of socio-economic status, whether education, occupation or income, reveal significant differences between the ethnic communities of Peninsular Malaysia. By and large, the Chinese have achieved the highest level of socio-economic development followed by the Indians. The Malays are generally still far behind the other communities. The ethnic groups are also segmented along cultural lines. Each group adheres strongly to its own way of life, custom, and religion. The Malays are followers of Islam, the Chinese devote themselves to one of the Chinese religious complex and the majority of the Indians are Hindus" (Abdullah, 1990: 65-66).

It clearly highlights enormous importance of promoting national unity as articulated in Malaysia's New Economic Policy of 1971, as well as other legislation designed to redress the economic imbalances between ethnic groups, as discussed in chapter I (page 1).

In motivating the Malaysian society towards providing an equitable distribution of educational opportunities for all students, the government is faced with a dilemma in the development of its policy direction of promoting private schools. As noted in Chapter I (page 18), the government's current national educational policy calls for private sector involvement in providing educational services at all levels of education will likely invite serious challenges on issues of disparity, equality, equity, and national unity.

Socioeconomic disparities among families can result in unequal availability of essential resources such as workbooks, textbooks, writing supplies, tutoring, and educational fees for extra-curricular activities, which can be used to raise quality; thus, the net effect of increasing participation of private sector schools would almost certainly

intensify educational inequalities among students. All these factors result in serious policy implications for families, educational providers, and government officials (Tsang and Kidchanapanish, 1992).

The finding of this study raises question about the cost-effectiveness of private schools. Loke et al (1999) observe a significant association between the achievement level of students and the type of schools. Based on the overall 1995 Lower Secondary Assessment (*Penilaian Menengah Rendah*), which is at the end of the three years of lower secondary level, students in the private schools have higher level of achievement than students in the government schools. They also document that there is a significant relationship between parents' monthly income and students' overall achievement level at the 1995 Lower Secondary Assessment (*Penilaian Menengah Rendah*). Students from higher socioeconomic status tend to achieve better overall achievement results in the 1995 Lower Secondary Assessment compared to students from lower socioeconomic status. However, previous research also shows that there is no evidence to support the claim that private education is superior to government schools in student achievement, after controlling for family background (e.g. Loke et al, 1999). But private schooling costs are markedly higher than government schooling costs. Significant amount of the direct private costs of private school parents are devoted to tuition, instead of inputs directly related to learning as items of instruction-related and non-instruction-related items may suggest. Thus there is no clear evidence that private schools are more cost-effective than government schools.

In addition, this study addresses the challenge of providing equitable distribution of educational opportunities at the secondary level, for all students in Malaysia. After a

careful examination of the private resources for schooling, this study documents the level of economic burden on households, which is significantly greater for lower income families than higher income families of children in both private and government schools. Further examination on educational financing reveals that there was a significant inequity of resources between the private and government secondary schools in Malaysia that is worth serious attention by policymakers.

Costs estimation not only helps education decision makers to strategize resource mobilization for secondary educational programs, such as how many resources should be allocated to salary or teaching aids, instructional materials, and in-house teacher training, but also assists in estimating the resources needed for educational programs that serve target populations. It discloses private resources for schooling that are not reported in the operational costs of schools, such as tutoring costs (non-classroom-related), education fees, and tuition costs. This study shows that private resources are significant for both types of schools. As also mentioned in the literature review chapter, Tsang and Kidchanapanish (1992: 197) show that private resources exacerbate the inequality of educational resources and inequitable educational financing with regard to different socioeconomic groups. This study confirms that policies favoring private schooling could increase dependence on family financing of education and, thus, lead to increased inequity since the economic burden of the costs of schooling on families would be higher for families with lesser means.

Utilizing a disaggregated data method, the current study compares private and government secondary schools in similar context in Malaysia. In providing more accurate costs estimates, it may help avoid misleading education policy. This study will contribute

to more informed decision making regarding more efficient allocation of resources in the secondary education in Malaysia.

Table 5.1 presents a summary of the four-criteria framework used for assessing the advantages of private and government schools based on current research literature: namely, productive efficiency, equity, freedom to choose, and social cohesion (Levin, 2001). Although private schooling offers more flexibility in bureaucratic procedures, provides opportunities to parents to choose customized educational programs and services, and can afford to provide and invest in a better quality education, as perceived by the parents, there are other important criteria it fails to address. Government schooling could ensure tuition-free education with very minimal education fees and offer greater access to schooling for all social groups. While funding equal access for all students remains a challenge, government schools are able to provide more equitable educational opportunities, and provide a common educational experience to all ethnic groups.

Table 5.1: Summary of advantages using four-criterion framework: government schools versus private schools

Criteria	Government schools	Private schools
Productive-efficiency:		
Cost	--	x
Effectiveness	--	x
Cost-effectiveness	-?-	-?-
Equity	x	--
Freedom to choose:	--	x
Flexibility	--	x
Customized education	--	x
Social cohesion	x	--

Source: Adapted from Cuellar-Marchelli, H. (2003:168)

At least in the case of secondary education in Malaysia, this study corroborates that opponents of private schooling have serious concerns about the negative effects of private schools on social equity and social cohesion (Levin, 1998). Not only do private schools increase inequality, but they also exacerbate racial and economic segregation (Krashinsky, 1986). Although to the government, the private-government partnership is a venture to share the cost burden, the current study indicates elements of serious challenge regarding policy implications and their effects on national unity.

V.3. Recommendations and suggestions for further research

This *third section* presents several recommendations and suggestions for further research. The current study provides a necessary basis for future studies of comparative cost-effectiveness between private and government schools. The study demonstrates a research model that can be replicated in additional settings in primary level or post-secondary level.

Proper estimates of costs in assessing private schools relative to government schools could be researched every five years to coordinate with Malaysian national census results of household expenditure survey and household income survey. A better record of information could be emphasized concerning differences of educational costs incurred by the private and government schools as documented in this current study. As mentioned in Tsang (2002), much deficiency in underestimating or in not estimating the amount of private resources is related to a lack of good information. The government should seriously look into the government schools system and explore ways to provide

adequate resources. In Malaysia, the Ministry of Education has already expressed concerns about education costs;

> "...a lack of data and information in this area (i.e. costs of educating a child in Malaysia) causes considerable difficulty in the Ministry's ability to identify policy intervention measures to improve present educational programs" (MoE, 1996: 4).

Unlike the earlier study by the Ministry of Education in 1996, the current study includes capital costs of schooling. It appears that failure to consider capital costs and private resources can significantly bias the relative cost ratio between the government schools and private schools (e.g. Tsang and Taoklam, 1992). Thus, it is recommended that all costs (recurrent cost, capital cost, direct private cost, household contributions, and indirect private cost) are estimated in future cost estimation studies for all levels of schooling.

The current study could inform a more efficient allocation and utilization of resources in the secondary education of private and government schools. It is recommended that similar studies be done at other levels of education, in comparing both private and government schools.

It is also suggested that researchers conduct studies of three categories of private resources for schooling, i.e. direct private costs, household contributions, and indirect private costs. Indirect private costs could be very substantial and important in higher education.

This study also prepares the groundwork for a cost-effectiveness study comparing and contrasting both private and government schools. Information on cost is needed to evaluate the relative cost-effectiveness of providing equitable educational opportunities

to all children in private and government schools. Thus, it is suggested that future studies be done in the area of cost-effectiveness study on all levels of schools.

It is also essential to look at the earning differentials between the students of government and private schools at the university level. Cost effects on students in relation to human capital can be observed, and thus one can examine whether or not private school students have an earning advantage in the job market when compared to government school students.

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APPENDICES

Appendix 1(a): List of government schools

Kelantan:
1. SMK DATO' AHMAD MAHER
2. SMK KUBANG KERIAN
3. SMK TANJUNG MAS
4. SM PENAMBANG

Johor:
1. SMK TUN PERAK
2. SEKOLAH TINGGI MUAR
3. SMK ST ANDREW
4. SMK SRI MUAR
5. SMK CONVENT (M)
6. SMK JALAN JUNID
7. SMK INFANT JESUS CONVENT (M)
8. SMK SULTANAH ENGKU TUN AMINAH
9. SMK DATO' ABDUL RAHMAN YASSIN
10. SMK DATO JAAFAR
11. SMK AMINUDDIN BAKI
12. SMK SAINT JOSEPH (B)

Kedah:
1. SMK KHIR JOHARI
2. SMK TUNKU ISMAIL
3. SMK BANDAR SUNGAI PETANI
4. SMK DATO BIJAYA SETIA
5. SMK FATHER BARRE'S CONVENT (M)

Wilayah Persekutuan:
1. SMK PETALING
2. SMK TAMAN TUN DR ISMAIL
3. SMK BUKIT BANDARAYA
4. SMK KEPONG BARU
5. SMK DATOK LOKMAN
6. SMK BANGSAR (INTEG)
7. SMK SERI HARTAMAS
8. SMK AMINUDDIN BAKI
9. SMK SERI TITIWANGSA
10. SMK MENJALARA
11. SMK DHARMA
12. SMK CHUNG HWA (CF)
13. SMK JINJANG
14. SMK SERI SAUJANA

Sarawak:
1. SMK KAMPUNG NANGKA
2. SMK METHODIST
3. SMK SACRED HEART (M)
4. SMK ST ELIZABETH (M)

5. SMK BANDAR KUCHING 2
6. SMK GREEN ROAD
7. SMK PETRA JAYA

Appendix 1(b): List of private schools

Kelantan:
1. SEKOLAH TINGGI WADI SOFIA
2. INSTITUT PENDIDIKAN DARULNAIM
3. INSTITUT TUNAS BAKTI

Johor:
1. SEKOLAH SERI OMEGA
2. SEKOLAH TUN DR ISMAIL
3. SEKOLAH MENENGAH SRI UTAMA

Kedah:
1. SEKOLAH MENENGAH SIN MIN
2. SEKOLAH MENENGAH KEAT HWA

Wilayah Persekutuan:
1. SEKOLAH MENENGAH SRI GARDEN
2. SEKOLAH MENENGAH SRI CEMPAKA
3. SEKOLAH MENENGAH SRI SEMPURNA

Sarawak:
1. SEKOLAH MENENGAH LODGE
2. SEKOLAH MENENGAH SUNNY HILL

Appendix 2: Questionnaires

1) QUESTIONNAIRE A:

School principal questionnaire

2) QUESTIONNAIRE B:

Parent/guardian(s) of Form Two questionnaires

Questionnaire A: School principal questionnaire

SURVEY QUESTIONNAIRE: SCHOOL PRINCIPAL QUESTIONNAIRE

Instruction: Please answer all questions either by writing in space or by placing a mark '/' in the box of the answer you think is the best response. This study gathers information based on school accounts audited as of Year 2003.

	A. Information on school		
1	Official School Name		
2	Official School Address		
3	School Phone No.	( )	
4	School Fax No.	( )	
5	School Email and School Website:		
6	No. of school instructional days as of the end of the school Year, 2003	No. of days _____	
7	Date of school establishment	day month year	
8	School session(s) as of School Year, 2003 (Only mark '/' that applies)	1 = Morning session 2 = Afternoon session 3 = Double session	
9	Total Student Enrollment	Enrollment in the beginning of school year _____	Enrollment in the end of school year _____
10	No. of classes as of school year 2003		No. of classes
11	No. of Full-Time regular teachers (please exclude Principal, Assistant Principal 1, Assistant Principal 2 and Extracurricular Assistant Principal) as of school year, 2003:		No. of teachers
12	No. of Temporary teachers as of school year, 2003:		No. of teachers

13	No. of Full-Time and no. of Full-Time Equivalent teachers with specific qualifications (including Principal, Assistant Principal 1, Assistant Principal 2 and Assistant Extracurricular Principal who teach classes as of school year, 2003	1 = No. of PhD Degree _____	2 = No. of Masters Degree _____	3 =No. of First degree _____	4= No. of Non-degree _____
14	No. of para professionals (Clerks, typists, drivers, security officers, janitors)		No. of support staff _____		
15	No. of lab assistants and technicians, if any, as of school year, 2003		No. of lab assistants _____		
16	No. of librarians and assistant librarians as of school year, 2003		No. of librarians and assistant librarians		

B. PERSONNEL COSTS

1	Total basic salaries for Administrators (Principal, Assistant Principal 1, Assistant Principal 2 and Extracurricular Assistant Principal) as of school year, 2003	RM
2	Total basic salaries for Full-Time teachers as of school year, 2003	RM
3	Total basic salaries for temporary teachers as of school year, 2003	RM
4	Total basic salaries for para professionals (Clerk, typist, driver, security officer, janitor) as of school year, 2003	RM
5	Total basic salaries for lab assistants and technicians as of school year, 2003	RM
6	Total cost of employment benefits (e.g. retirement fund, housing allowances) for Principal, Assistant Principal 1, Assistant Principal 2 and Extracurricular Assistant Principal as of school year, 2003	RM
7	Total cost of employment benefits for Full-Time teachers as of school year, 2003	RM
8	Total cost of employment benefits for para Professionals (Clerk, typist, driver, security officer, janitor) as of school year, 2003	RM
9	Total cost of employment benefits for lab assistant and technicianas of school year, 2003	RM
10	Total supplementary benefits (e.g. yearly bonusses or award benefits) for Principal, Assistant Principal 1, Assistant Principal 2 and Extracurricular Assistant Principal as of school year, 2003	RM
11	Total supplementary benefits for Full-Time teachers as of school year, 2003	RM
12	Total supplementary benefits for para professionals (Clerk, typist, driver, security officer, janitor) as of school year, 2003	RM
13	Total supplementary benefits for lab assistants and technicians as of school year, 2003	RM

C. NON-PERSONNEL COSTS: INSTRUCTIONAL MATERIALS & TEACHING AIDS		
1	a) No. of students eligible for textbooks' loan as of school year, 2003	No. of students _____
	b) Textbooks' loan to eligible students as of school year, 2003. Please convert to the nearest RM.	RM
2	Total expenditures for disposable items for office use (e.g. copies, pens, pencils, papers, clips, etc) as of school year, 2003	RM
3	Total expenditures for disposable items for teachers and classrooms' use (e.g.chalks, whiteboard pens, pencils, papers, clips, bulbs, etc) as of school year, 2003	RM
4	Total expenditures for disposable items for library, resource center and computer labs (e.g. papers, clips, files, book covers, tapes, labels, folders, etc.) as of school year, 2003	RM
5	Total expenditures for disposable items for science lab (e.g.tubes, gas, chemicals, microscopes, etc.) as of school year, 2003	RM
6	Total expenditures for staff Professional Development in a year including workshops, courses, seminar, training and others.	RM
7	Total expenditures for exams purposes administered during the year 2003	RM
8	Total expenditures for students' projects (on site or field work) in the year 2003	RM
9	Petty cash money for the year 2003 (e.g stationery items, stamps, printing)	RM
10	Total capital expenditures (eg. office equipment, table & chairs) as of year, 2003	RM
D. NON-PERSONNEL COSTS: MINOR REPAIR & REGULAR MAINTENANCE		
1	Maintenance and repairs (e.g. lighting, window panes, faucet replacement, etc.) in year 2003	RM
2	Maintenance costs for computers in year 2003	RM
3	Maintenance costs for buildings in year 2003	RM
4	Maintenance costs for school environment (e.g.planting grass, flowers, general cleaning, painting walls, etc.) in year 2003	RM
5	Maintenance costs for school vehicles (e.g. petrol, vans, buses, and cars) in year 2003	RM
6	Other forms of expenditures which are not stated above in year 2003. Please state examples:	RM
	a-	RM

E. NON-PERSONNEL COSTS: UTILITIES		
1	Utility bills: Electricity, water, phone bills and sewarage for year 2003	RM
2	Internet bill in year 2003	RM
F. NON-PERSONNEL COSTS: STUDENT WELFARE		
PARENT - TEACHER ASSOCIATION (PTA) EXPENDITURE (INFORMATION RETRIEVED FROM PTA SECRETARY)		
1	Total PTA expenditure for the following items in year 2003. Please indicate the amount spent for these items:	RM
	a- PTA fund used for instructional materials & teaching aids	RM
	b- PTA fund used for minor repair and regular maintenance costs	RM
	c- PTA fund used for student's welfare	RM
2	Total insurance premium paid for students in year 2003	RM
3	Special school functions in year 2003 (for e.g. Sports Day, Teachers Day, Academic Achievement Award Day, motivation camp, etc.)	RM
4	Pocket money received by eligible students in year 2003	RM
5	Total subsidies for transportation and school related events received by students in year 2003	RM
H. SCHOOL FINANCIAL SOURCES AS OF THE YEAR 2003		
I. Income		
1	Allocations received for salaries (including employment benefits, supplementary benefits) in year 2003 for Principal, Assistant Principals, teachers, support staff, lab assistants, para professionals, etc.)	RM
2	Allocations received from Per Capita Grant (PCG) in year 2003	RM
3	Allocations received for school LPBT (Other Recurrent Expenditures) purposes for utility bills and small scale maintenance	RM
4	Allocations received for school library and resource center	RM
5	Allocations for travel purposes for teachers, staff and students	RM
6	Allocations received for maintenance (computer, furniture and fittings, vehicles, school compound, etc.)	RM
7	Total Scholarships received by students in year 2003	RM

II. Income from Parents Teacher Association, community contribution and other organizations:		
1	Fees for PTA fund (compulsory on all students to fund PTA activities)	RM
2	Information from PTA's SECRETARY : Assistance from the Parent-Teacher Association (in monetary forms or property or energy) as of school year, 2003.	RM
3	Rental of cafeteria or school compound for school-related functions as of school year, 2003	RM
4	Financial assistance from Sports Council, if any, as of school year, 2003	RM
5	Financial assistance from club and organizations for students' activities or school functions as of school year 2003	RM
6	Community contributions (e.g. money and/or gifts, furnitures, equipment, fish pond, reading area in year 2003?	RM
7	Income from fund-raising activity(eg. Jogathon)	RM
8	Scholarship from 'Zakat' (donation from Islamic organization) for eligible students in year 2003	RM
9	Assistance from external sources (for instance from organizations, philanthropies, etc.) in year 2003	RM
10	Total allocations from other sources which are not stated above in year 2003. Please state some examples.	RM
	a)	RM
I. CAPITAL COSTS. (FOR GOVERNMENT SCHOOLS: DO NOT FILL IN THIS SECTION : INFORMATION RETRIEVED FROM MINISTRY OF EDUCATION)		
1	Market value of land on which school and playing field is situated in year 2003	RM
2	Cost of construction and additions to school buildings in year 2003. Materials include: concrete, bricks, woods etc.)	RM
3	Equipment such as typewriter, computer, printer, etc. in year 2003	RM
4	Furniture items and fittings in the office and classrooms in year 2003	RM
5	Other capital costs in year 2003, please specify:..... ...	RM

Questionnaire B: Parent(s)/guardian(s) of Form Two questionnaire

SURVEY QUESTIONNAIRE: PARENT(S)/GUARDIAN(S) QUESTIONNAIRE

Instruction: Please answer all the questions which you think are the best answers, or by writing in the spaces provided.

A. PARENTS' INFORMATION

1 Respondent's marital status _____
1= Married
2= Single
3= Widowed
4= Divorced/ permanently separated

2 Your relationship with the student _____
1= Mother
2= Father
3=Guardian

3 Ethnicity _____
1=Malay
2=Chinese
3=Indian
4=Peribumi (Indigenous population)
5=Other (specify):.....

4 Gender _____
1=Male
2=Female

5 How many members in your family? _____

6 How many children do you have? _____

7 Number of children in school _____

8 Age of your youngest child _____

9 Distance of child's school from home _____

B. PARENT(S)/GUARDIAN(S)' EDUCATION

10 **HIGHEST CERTIFICATE / DIPLOMA /DEGREE YOU HAVE ATTAINED**

Please write the appropriate number only:

a) Father _____

b) Mother _____

c) Guardian (s) _____

1= Primary
2= PMR / SRP / LCE
3= SPM / MCE / GCE O Level
4= STPM / HSC / STA /4 Thanawi / GCE A Level
5=SPVM / SPM(V) / MCVE
6= Certificate / Diploma in trade or technical skills
7= Certificate (Polytechnic / College)
8= Diploma (Polytechnic / College)
9 =Degree / Advanced Diploma
10=Post Graduate Certificate / Diploma
11=Post Graduate Degree

11 **FROM WHERE DID YOU OBTAIN YOUR CERTIFICATE / DIPLOMA / DEGREE?**

Please write the appropriate number only:

a) Father _____

b) Mother _____

c) Guardian(s) _____

1= Public Institution in Malaysia

2= Private Institution in Malaysia

3= Overseas Institution

C. HOUSEHOLD EXPENDITURES ON CHILD'S EDUCATION.

12 Fees for the total household spending for the following expenses in RM :

RM

a- Registration fees (one -time registration fee): _____

b- Fees for *school exams and academic schools activities* for a semester (in the school year from January till October, 2003).... _____

c- Fees for extracurricular activities for a semester (e.g Scouts, Computer clubs, etc) _____

13 Below are non-fee expenditures for school-related *daily activities* and *extracurricular activities* (RM):

CURRICULUM	RM	EXTRACURRICULAR ACTIVITIES	RM
a- School Uniform in a school year	_____	a- Extracurricular uniform in a school year	_____
b- Textbooks (if your child is not eligible for free-loan text books) , in a school year	_____	b- School trips under extracurricular activities in a school year	_____
c- School trips and recreation in a school year	_____	c- Sports shoes per semester	_____
d-Daily school shoes per semester	_____	d- Lunch/snacks in one month	_____
e- Workbooks, supplementary study guides and school project materials per semester	_____	e- Pocket money for extracurricular activities in one month	_____
f-Stationeries (e.g. pen, pencils, bagpacks, etc) in one month	_____	f- Insurance related to Extracurricular activities in one month	_____
g-Photocopies in one month	_____	g- Other related expenses in one month: please give examples.....	_____
h- Snacks in one month	_____		
I- Medical insurance, life insurance, or other insurance if any (in one month)	_____		

14 **Household contributions to schools in one school year, 2003:**
RM

a- Parent(s) or guardian (s) contributions to school in cash _____

b- Parents Teacher Association (PTA) contribution _____

c- Other contributions (eg: special contribution for building, furniture and fittings, etc) _____

d- Parent's contributions to school in kind for e.g. time, energy, chaparoning in school trips, cooking dishes, tutoring, volunteering in school functions, etc.). Please convert the following items into the nearest RM.

i- time _____

ii- volunteering in school functions _____

iii- cooking dishes _____

iv- chaparoning in school trips _____

D. INDIRECT PRIVATE COSTS OF SCHOOLING. ROUND UP TO THE NEAREST RM.

15 Do you have any maid/nanny to help out with the household chores at home (in year 2003)?

1.YES 2. NO

16 On average, how many hour/s in a day does your child help you out with the household chores (if any) if he/she is not at school? For eg. babysit sister/brother, fold clothes, etc. _____ hour/day

E. MISCELLANEOUS. Please check where it applies.

17 If you are given an option, what kind of school would you prefer to send your child to?

a- Government school
b- Private school
c- No special preference (go to Q:18)

18 Why would you like to send your child to such a school?

Circle All That Are Applicable

a- Better academic standards / syllabus
b- Better facilities
c- Better teaching
d- Family background of other children
e- Free / Less expensive education
f- English medium of instruction
g- Moral and spiritual values of school
h- Other (Specify : _____)

19 Does your child receive any form of scholarship from school or state or other non-profit organizations (e.g. NGO, Yayasan Bukhari) or religious organizations (e.g. in a form of zakat) etc.? Please specify. _____

20 Does your child receive any donations in non-monetary from individuals or agencies (for e.g. backpacks, uniforms, books, etc.). Please specify. _____

21 What is your monthly <u>total household income</u> for the <u>year 2003</u>? (e.g. wages and salaries, allowances, earnings from rent, royalties, pensions, dividends)

Please <u>circle</u> the number that applies only which represents your nearest amount of total household income (RM):

1- 999 and below

2- 1000 - 2,999

3- 3,000 - 4,999

4- 5,000 - 6,999

5- 7,000 - above

	TOTAL HOUSEHOLD EXPENDITURES		
	DESCRIPTION OF EXPENDITURE	**PER MONTH (RM)**	
	How much, on average do you spent on :		
1	Purchase of food (eg: rice, bread, milk and etc)		
2	Expenditure in restaurants, fast food outlets, stalls		
3	Clothing expenses		
4	Household equipment		
5	Health and medical bills / premium insurance		
6	House rent (including imputed rent)		
7	Utility bills (eg: electricity, water and phone bills)		
8	Internet bills		
9	Payment for domestic services (eg: domestic help, gardener)		
10	Monthly bills for newspaper, magazines, book rental		
11	Video tape rental		
12	Petrol bills / transportation / travels		
13	Road tolls		
14	Parking fees		
15	Membership fees (eg: trade unions, political parties, social parties,golf club or any other sports club)		
16	Donation to religious / charitable institutions		
17	Gifts in cash and / or in kind		
	Specify : _____		
18	Remittances to other households		
19	Loan repayments		
20	Hire purchase - Instalment		
21	Addition to savings (eg: coin box, post office, bank, house)		
22	Amount invested		
23	Loans given out		
24	Cable fees for television networks (e.g. ASTRO cable)		
25	Zakat / Fitrah		
26	Fines (eg: traffic offences, littering)		
27	Other expenses		
	Specify : _____		
28	Do you live in your own house?	**YES**	**NO**

Questionnaire A: School principal questionnaire (Malay version)

Arahan: Sila tulis maklumat yang diperlukan atau tandakan '/' di kotak yang berkenaan. Maklumat yang diperlukan ini berdasarkan tahun 2003 yang telah di audit di sekolah tuan /puan.

A. MAKLUMAT ASAS SEKOLAH

1	Nama & Kod Sekolah				
2	Alamat Sekolah				
3	No. Telefon Sekolah	( )			
4	No. Faks Sekolah	( )			
5	Email Sekolah & Laman Web Sekolah				
6	Bilangan hari persekolahan pada tahun 2003	Bilangan hari _____			
7	Tarikh sekolah ditubuhkan	hari	bulan	tahun	
8	Sesi sekolah pada tahun 2003 (Sila tanda '/' pada yang berkenaan)	1 = Sesi pagi 2 = Sesi petang 3 = Dua sesi (pagi dan petang)			
9	Jumlah enrolmen pada tahun 2003	Enrolmen di awal tahun persekolahan _____	Enrolmen di akhir persekolahan (terkini) _____		
10	Bilangan kelas pada akhir tahun 2003 (terkini)		Bilangan kelas		
11	Bilangan guru sehingga hari akhir persekolahan tahun 2003 (tidak termasuk Pengetua, Penolong Kanan 1, Penolong Kanan 2, dan Penolong Kanan 3)		Bilangan guru		
12	Bilangan guru sementara pada tahun 2003:		Bilangan guru		
13	Bilangan guru yang memiliki kelayakan seperti di bawah termasuk Pengetua, Penolong Kanan 1, Penolong Kanan 2, Penolong Kanan 3) pada tahun 2003	1 = Bilangan pemegang Ijazah PhD _____	2 = Bilangan Ijazah Masters _____	3 =Bilangan pemegang Ijazah _____	4= Bilangan tiada Ijazah (hanya sijil perguruan) _____
14	Bilangan kakitangan sokongan (kerani, jurutaip, pemandu, jaga, PAR/PRA) di sekolah sehingga hari akhir persekolahan tahun 2003.	Bilangan staf sokongan _____			
15	Bilangan pembantu makmal sehingga hari akhir persekolahan tahun 2003.	Bilangan pembantu makmal _____			
16	Bilangan perpustakawan dan pembantu perpustakawan tahum persekolahan 2003	Bilangan perpustakawan dan pembantu perpustakawan _____			

B. KOS PERSONEL		
1	Jumlah gaji Pengetua, Penolong Kanan 1, Penolong Kanan 2, Penolong Kanan 3 sahaja pada tahun 2003	RM
2	Jumlah gaji guru-guru (tidak termasuk guru sementara) pada tahun 2003	RM
3	Jumlah gaji guru sementara pada tahun 2003	RM
4	Jumlah gaji kakitangan sokongan (cth. kerani, jurutaip, pemandu, jaga, PAR/PRA) pada tahun 2003	RM
5	Jumlah gaji pembantu makmal dan juruteknik pada tahun 2003	RM
6	Jumlah elaun tambahan (cth.Imbuhan Tetap Khidmat Awam (ITKA), Imbuhan Tetap Keraian (ITK), Imbuhan Tetap Perumahan) bagi Pengetua, Penolong Kanan 1, Penolong Kanan 2, Penolong Kanan 3 pada tahun 2003	RM
7	Jumlah elaun tambahan (cth.Imbuhan Tetap Khidmat Awam (ITKA), Imbuhan Tetap Keraian (ITK), Imbuhan Tetap Perumahan) bagi guru-guru pada tahun 2003	RM
8	Jumlah elaun tambahan (cth.Imbuhan Tetap Khidmat Awam (ITKA), Imbuhan Tetap Keraian (ITK), Imbuhan Tetap Perumahan) bagi kakitangan sokongan (kerani, jurutaip, pemandu, jaga) pada tahun 2003	RM
9	Jumlah elaun tambahan (cth.Imbuhan Tetap Khidmat Awam (ITKA), Imbuhan Tetap Keraian (ITK), Imbuhan Tetap Perumahan) bagi pembantu makmal dan juruteknik pada tahun 2003	RM
10	Jumlah elaun khas (cth. bonus, elaun tanggungjawab) Pengetua, Penolong Kanan 1, Penolong Kanan 2, Penolong Kanan 3 dan Guru Kanan/Ketua Bidang pada tahun 2003	RM
11	Jumlah elaun khas (cth. bonus, elaun tanggungjawab) bagi guru-guru pada tahun 2003	RM
12	Jumlah elaun khas (cth. bonus) bagi kakitangan sokongan (kerani, jurutaip, pemandu, jaga) pada tahun 2003	RM
13	Jumlah elaun khas (cth. bonus) bagi pembantu makmal dan juruteknik pada tahun 2003	RM
14	Jumlah elaun bagi guru komputer, guru muzik, guru taekwando, guru kelas tambahan pada tahun 2003	RM
15	Jumlah perbelanjaan bagi 'uniform' kakitangan sokongan (PAR/PRA) pada tahun 2003	RM
C. KOS BUKAN PERSONEL: ALAT BANTU MENGAJAR DAN BAHAN PENGAJARAN & PEMBELAJARAN		
1	(a) Bilangan pelajar yang layak mendapat pinjaman buku teks bagi tahun 2003.	Bilangan pelajar _____
	(b) Jumlah pinjaman buku teks kepada pelajar yang layak sehingga hari akhir persekolahan 2003. Sila berikan dalam jumlah yang terhampir (RM).	RM

2	Jumlah perbelanjaan bahan lupus ('disposable items') bagi kegunaan pejabat (pen, pencil, klip, bulb lampu) pada tahun 2003	RM
3	Jumlah perbelanjaan bahan lupus bagi kegunaan guru dan bilik darjah (buku rekod mengajar, buku kedatangan, bakul sampah, almari, meja, pengasah pensil) pada tahun 2003	RM
4	Jumlah perbelanjaan bahan lupus bagi kegunaan perpustakaan, pusat sumber dan makmal komputer (cth. kertas, klip, fail, pengalas meja, kertas pembalut, label, majallah, langganan jurnal bersiri , buku-buku, dll) pada tahun 2003	RM
5	Jumlah perbelanjaan bahan lupus bagi makmal sains (cth. tabung uji, gas, bahan kimia, mikroskop, dll) pada tahun 2003	RM
6	Jumlah perbelanjaan bagi aktiviti perkembangan kemajuan staf termasuk bengkel, kursus pendek dan kursus panjang, seminar, perkembangan staff dll pada tahun 2003	RM
7	Jumlah perbelanjaan bagi ujian dan peperiksaan pada tahun 2003	RM
8	Jumlah perbelanjaan untuk projek sekolah pelajar-pelajar pada tahun 2003	RM
9	Jumlah wang 'Petty cash' pada tahun 2003 (cth. alat tulis, alat cetakan dll)	RM
10	Jumlah perbelanjaan modal pada tahun 2003 (cth. alatan pejabat, meja, kerusi dll)	RM
D. KOS BUKAN PERSONEL : PEMBAIKAN KECIL & KERJA SELENGGARAAN		
1	Jumlah perbelanjaan untuk pembaikan dan senggaraan kecil bagi tahun 2003. Contoh: tingkap ('window panes'), paip, lampu, dan sbgnya.	RM
2	Jumlah perbelanjaan senggaraan komputer bagi tahun 2003.	RM
3	Jumlah perbelanjaan senggaraan bangunan bagi tahun 2003.	RM
4	Jumlah perbelanjaan keceriaan sekolah bagi tahun 2003 (cth. langsir, pasu bunga, cat, mesin rumput, dll)	RM
5	Jumlah perbelanjaan senggaraan untuk kenderaan sekolah bagi tahun 2003 (cth. minyak kenderaan, pembaikan van atau bas sekolah dll)	RM
6	Jumlah perbelanjaan untuk aktiviti pembaikan dan senggaraan kecil selain daripada yang di atas jika ada. Sila berikan contohnya:	
	a-	RM

E. KOS BUKAN PERSONEL: UTILITI		
1	Bil utiliti: elektrik, air dan pembentungan pada tahun 2003	RM
2	Bil Internet pada tahun 2003	RM
F. KOS BUKAN PERSONEL : KEBAJIKAN PELAJAR		
JUMLAH PERBELANJAAN PERSATUAN IBU BAPA & GURU (PIBG) - MAKLUMAT DARIPADA SETIAUSAHA PIBG		
1	Sila nyatakan jumlah perbelanjaan PIBG bagi perkara yang berikut untuk tahun 2003 (RM).	
	(a) Wang PIBG yang digunakan untuk alat bantu mengajar dan bahan pengajaran & pembelajaran	RM
	(b) Wang PIBG yang digunakan untuk pembaikan kecil dan kerja selenggaraan	RM
	(c) Wang PIBG yang digunakan untuk kebajikan pelajar	RM
2	Jumlah premium insurans yang dibayarkan untuk pelajar bagi tahun 2003	RM
3	Jumlah perbelanjaan untuk hari keramaian sekolah bagi tahun 2003 (Hari Sukan, Hari Guru, Hari IbuBapa, Hari Anugerah Cemerlang dll)	RM
4	Jumlah subsidi wang saku bagi pelajar yang layak menerima untuk tahun 2003	RM
5	Jumlah subsidi tambang/pengangkutan atau kerja sekolah yang diterima oleh pelajar untuk tahun 2003	RM
G. SUMBER KEWANGAN SEKOLAH BERASASKAN TAHUN 2003		
I. Pendapatan		
1	Jumlah wang yang diterima untuk gaji (termasuk elaun tambahan dan elaun khas) bagi Pengetua, Penolong Kanan I, Penolong Kanan 2 dan Penolong Kanan 3, guru-guru, kakitangan sokongan, pembantu makmal dan kakitangan senggaraan sekolah pada tahun 2003	RM
2	Jumlah wang yang diterima untuk geran per kapita (PCG) pada tahun 2003	RM

3	Jumlah wang yang diterima untuk LPBT (Lain Perbelanjaan Berulang Tahun) pada tahun 2003	RM
4	Jumlah wang yang diterima untuk perpustakaan sekolah dan pusat sumber.	RM
5	Jumlah wang yang diterima untuk perjalanan pelajar, guru dan staf	RM
6	Jumlah wang yang diterima untuk penyelenggaraan (komputer, perabot, bangunan, kenderaan, kawasan dsb)	RM
7	Jumlah biasiswa yang diterima oleh pelajar pada tahun 2003	RM
8	Jumlah subsidi yuran peperiksaan awam yang diterima oleh pelajar pada tahun 2003	RM
9	Jumlah untuk perbelanjaan yang lain. Sila nyatakan:	RM
	(a) Peruntukan sumber 'ETEM' (Mengajar Matematik dan Sains dalam Bahasa Inggeris)	RM
	(b) Peruntukan lain yang diterima. Sila nyatakan:_____	RM
II. Sumber Kewangan Dari PIBG, Sumbangan Masyarakat Dan Organisasi Lain:		
1	Yuran PIBG (wajib keatas semua pelajar untuk membayar yuran bagi aktiviti PIBG)	RM
2	Maklumat dari SETIAUSAHA PIBG: Bantuan dari PIBG (dalam bentuk wang ringgit, barangan/harta atau tenaga) bagi tahun persekolahan 2003	RM
3	Jumlah sewa kantin atau kawasan sekolah yang disewakan digunakan untuk aktiviti sekolah atau aktiviti kebajikan lain bagi tahun 2003	RM
4	Jumlah bantuan yang diterima sekolah daripada Majlis Sukan Sekolah (jika ada) bagi tahun persekolahan 2003	RM
5	Jumlah bantuan dari kelab dan persatuan untuk aktiviti pelajar atau majlis-majlis yang diadakan di sekolah bagi tahun 2003	RM
6	Sumbangan masyarakat setempat (cth: wang ringgit dan/atau hadiah, perabot, peralatan, kolam ikan dll) bagi tahun 2003?	RM
7	Sumbangan dari aktiviti 'Fund-raising' (cth: Jogathon)	RM
8	Bantuan daripada duit Zakat (daripada Organisasi Islam) untuk pelajar yang layak menerima bagi tahun 2003	RM
9	Bantuan daripada sumber luar (cth: syarikat/organisasi, penderma dll) pada tahun 2003	RM
10	Jumlah bantuan daripada sumber-sumber lain yang tidak tersebut di atas bagi tahun 2003. Sila berikan contohnya.	
	(a)	RM

3	Jumlah wang yang diterima untuk LPBT (Lain Perbelanjaan Berulang Tahun) pada tahun 2003	RM
4	Jumlah wang yang diterima untuk perpustakaan sekolah dan pusat sumber.	RM
5	Jumlah wang yang diterima untuk perjalanan pelajar, guru dan staf	RM
6	Jumlah wang yang diterima untuk penyelenggaraan (komputer, perabot, bangunan, kenderaan, kawasan dsb)	RM
7	Jumlah biasiswa yang diterima oleh pelajar pada tahun 2003	RM
8	Jumlah subsidi yuran peperiksaan awam yang diterima oleh pelajar pada tahun 2003	RM
9	Jumlah untuk perbelanjaan yang lain. Sila nyatakan:	RM
	(a) Peruntukan sumber 'ETEM' (Mengajar Matematik dan Sains dalam Bahasa Inggeris)	RM
	(b) Peruntukan lain yang diterima. Sila nyatakan:_____	RM
II. Sumber Kewangan Dari PIBG, Sumbangan Masyarakat Dan Organisasi Lain:		
1	Yuran PIBG (wajib keatas semua pelajar untuk membayar yuran bagi aktiviti PIBG)	RM
2	Maklumat dari SETIAUSAHA PIBG: Bantuan dari PIBG (dalam bentuk wang ringgit, barangan/harta atau tenaga) bagi tahun persekolahan 2003	RM
3	Jumlah sewa kantin atau kawasan sekolah yang disewakan digunakan untuk aktiviti sekolah atau aktiviti kebajikan lain bagi tahun 2003	RM
4	Jumlah bantuan yang diterima sekolah daripada Majlis Sukan Sekolah (jika ada) bagi tahun persekolahan 2003	RM
5	Jumlah bantuan dari kelab dan persatuan untuk aktiviti pelajar atau majlis-majlis yang diadakan di sekolah bagi tahun 2003	RM
6	Sumbangan masyarakat setempat (cth: wang ringgit dan/atau hadiah, perabot, peralatan, kolam ikan dll) bagi tahun 2003?	RM
7	Sumbangan dari aktiviti 'Fund-raising' (cth: Jogathon)	RM
8	Bantuan daripada duit Zakat (daripada Organisasi Islam) untuk pelajar yang layak menerima bagi tahun 2003	RM
9	Bantuan daripada sumber luar (cth: syarikat/organisasi, penderma dll) pada tahun 2003	RM
10	Jumlah bantuan daripada sumber-sumber lain yang tidak tersebut di atas bagi tahun 2003. Sila berikan contohnya.	
	(a)	RM

H. KOS KAPITAL (BAGI SEKOLAH KERAJAAN : KOSONGKAN BAHAGIAN INI : MAKLUMAT BERADA DI KEMENTERIAN PENDIDIKAN		
1	Harga pasaran tanah sekolah dan kawasan/padang pada tahun 2003	RM
2	Kos infrastruktur dan tambahan bangunan sekolah bagi tahun 2003. (Cth: konkrit, batu bata, kayu dll)	RM
3	Peralatan seperti mesin taip, komputer, printer dll pada tahun 2003.	RM
4	Perabot dan kelengkapan di pejabat dan bilik darjah pada tahun 2003.	RM
5	Lain-lain kos kapital yang tidak disebut di atas pada tahun 2003 (jika ada) sila nyatakan: _____	RM

Questionnaire B: Parent(s)/guardian(s) of Form Two questionnaire (Malay version)

Arahan : Sila jawab semua solan yang berikut.

A. PROFIL IBU BAPA / PENJAGA

1	Status tuan puan / penjaga	_____	1= Berkahwin 2= Bujang 3= Bercerai
2	Hubungan tuan puan / penjaga	_____	1= Ibu 2= Bapa 3=Penjaga
3	Kaum	_____	1=Melayu 2=Cina 3=India 4=Peribumi (suku kaum di Semenanjung, Sabah dan Sarawak) 5=Lain-lain (nyatakan):……
4	Jantina	_____	1=Lelaki 2=Perempuan
5	Jumlah ahli keluarga anda	_____	
6	Jumlah anak anda	_____	
7	Jumlah anak yang masih bersekolah	_____	
8	Berapakah umur anak bongsu anda?	_____	
9	Jarak sekolah dari rumah anda (anggaran)	_____	km

B. MAKLUMAT & PENDIDIKAN IBUBAPA / PENJAGA

Sila tandakan yang berkenaan sahaja bagi soalan-soalan yang berikut.

10 **KELAYAKAN AKADEMIK TERTINGGI ANDA**

Sila tulis nombor yang berkenaan sahaja dengan merujuk kete

a) Bapa _____

b) Ibu _____

c) Penjaga _____

1= Sekolah rendah
2= PMR / SRP / LCE
3= SPM / MCE / GCE O Level
4= STPM / HSC / STA /4 Thanawi / GCE A Level
5=SPVM / SPM(V) / MCVE
6= Sijil / Diploma
7= Sijil (Politeknik / Kolej)
8= Diploma (Politeknik / Kolej)
9 = Diploma Lanjutan
10=Ijazah
11=Ijazah Lanjutan

11 **DIMANAKAH ANDA PEROLEHI SIJIL / DIPLOMA / IJAZAH**

a) Bapa _____

b) Ibu _____

c) Penjaga _____

1= Institusi Tinggi Awam di Malaysia
2= Institusi Tinggi Swasta di Malaysia
3= Institusi Tinggi Luar Negara

C. KOS PERBELANJAAN PERSEKOLAHAN ANAK ANDA.

12 Jumlah perbelanjaan keseluruhan isi rumah anda dalam RM.

a- Yuran pendaftaran sekolah (yuran pendaftaran permulaan sahaja): _____

b- Perbelanjaan untuk yuran peperiksaan dan yuran aktiviti akedemik sekolah untuk satu tahun persekolahan (bermula sekolah dari Januari hingga Oktober, 2003) _____

c- Perbelanjaan untuk yuran aktiviti ko-kurikulum bagi satu penggal (kelab/persatuan,pasukan pakaian seragam dan lain-lain). _____

13 Perbelanjaan aktiviti harian persekolahan dan ko-kurikulum (RM) :

KURIKULUM	RM	AKTIVITI KO-KURIKULUM	RM
a- Pakaian Seragam Sekolah (setahun)		a- Pakaian seragam ko-kurikulum (setahun)	
b- Buku Teks (sekiranya anak anda tidak layak menerima pinjaman buku teks) , setahun		b- Lawatan sekolah dalam aktiviti ko-kurikulum (setahun)	
c- Lawatan sekolah dan aktiviti rekreasi / riadah (setahun)		c- Kasut sukan bagi satu penggal	
d-Kasut sekolah harian bagi satu penggal		d- Makanan ringan tengahari (sebulan)	
e- Buku kerja, buku panduan dan bahan-bahan yang digunakan untuk projek sekolah bagi satu penggal		e- Wang saku untuk aktiviti ko-kurikulum (sebulan)	
f- Alat-alat tulis (cth: pen, pensil dan lain-lain) sebulan		f- Insuran yang diambil untuk aktiviti ko-kurikulum (sebulan)	
g- "Photocopy" sebulan		g- Perbelanjaan lain-lain yang berkaitan (sebulan) : sila beri contoh.....	
h- Makanan ringan (sebulan)			
I- Insuran Perubatan, Insuran Hidup dan lain-lain jenis insuran (sebulan)			
j- Wang saku untuk aktiviti harian sekolah (sebulan)			
k-Perbelanjaan tusyen (cth: kelas tambahan sekolah, pusat tusyen, upah guru tusyen) sebulan			

14 **Sumbangan Ibu Bapa / Penjaga Bagi Persekolahan Anak dalam Setahun : RM**

a- Sumbangan ibu bapa/penjaga bagi persekolahan anak dalam bentuk wang tunai untuk satu penggal _____

b- Persatuan Ibu Bapa dan Guru (PIBG) _____

c-Lain-lain jenis sumbangan (cth: sumbangan khas untuk bangunan, perabot dan lain-lain) _____

d-Sumbangan ibu bapa / penjaga bagi persekolahan anak (cth: masa, tenaga, lawatan sambil belajar, memasak makanan, tuisyen,"volunteer" di dalam sesuatu majlis sekolah dan lain-lain). Bundarkan kepada RM terhampir.

i- masa _____

ii- "volunteer" didalam sesuatu majlis sekolah _____

iii- memasak makanan _____

iv- lawatan sambil belajar _____

D. KOS PERSEKOLAHAN SECARA TIDAK LANGSUNG

15 Adakah anda mempunyai pembantu rumah?

1.Ya 2. Tidak

16 Secara purata,berapa **jam**kah dalam sehari anak anda membantu di dalam kerja-kerja rumah (seperti menjaga adik, melipat kain baju, mengemas rumah dan lain-lain), jika jika dia tidak ke sekolah? _____ Jam/Hari

E. LAIN - LAIN PERKARA. Sila tanda mana yang berkenaan.

17 Sekiranya diberi pilihan, sekolah manakah yang menjadi pilihan anda?

a- Sekolah kerajaan
b- Sekolah swasta
c- Tiada pilihan istimewa (pergi ke Soalan 20)

18 Mengapakah anda memilih untuk menghantar anak ke sekolah tersebut?

Tanda Semua Yang Berkenaan.

a- Tahap akademik yang lebih baik
b- Prasarana yang lebih baik
c- Tahap pembelajaran yang lebih baik
d- Latar belakang keluarga pelajar lain
e- Pendidikan yang lebih berpatutan
f- Bahasa Inggeris sebagai bahasa penghantar
g- Nilai moral yang lebih baik
h- Lain - lain (Nyatakan) _____

19 Adakah anak anda menerima sebarang jenis biasiswa dari mana-mana sekolah atau kerajaan negeri (cth: Yayasan Bukhari) atau Badan Agama (cth: dalam bentuk zakat) dan lain-lain? Sila nyatakan.

_____

20 Adakah anak anda menerima sumbangan dalam bentuk bukan wang (cth: beg dan uniform sekolah, buku dan lain-lain). Sila nyatakan.

_____

21 Berapakah jumlah keseluruhan pendapatan anda (suami/isteri atau penjaga) dalam tahun 2003? (pendapatan termasuk gaji, pendapatan dari rumah sewa, royalti, pencen, dividen)

Sila bulatkan pada nombor yang berkenaan sahaja (yang terhampir dengan jumlah keseluruhan pendapatan anda

a- 999 ke bawah _____
b- 1000 - 2,999 _____
c- 3,000 -4,999 _____
d- 5,000 -6,999 _____
e- 7,000 ke atas _____

	PERBELANJAAN ISI RUMAH	
	DESKRIPSI PERBELANJAAN	**BULANAN (RM)**
	Secara purata, berapakah jumlah yang anda belanjakan :	
1	Pembelian makanan (cth: beras, roti, susu dan lain-lain)	
2	Perbelanjaan di Restoran, "Fast-Food Outlets", gerai	
3	Perbelanjaan pakaian	
4	Alatan/bahan isi rumah	
5	Bil kesihatan dan perubatan / premium insuran	
6	Sewa rumah (termasuk sewa yang dinilai)	
7	Bil utiliti (cth: bil elektrik, air dan telefon)	
8	Bayaran bil Internet	
9	Pembayaran untuk perkhidmatan kerja rumah (cth: pembantu rumah, tukang kebun)	
10	Bil bulanan untuk surat khabar, majalah, sewaan buku	
11	Sewaan pita video	
12	Bil petrol	
13	Tol jalan raya	
14	Bayaran letak kereta	
15	Yuran keahlian (cth: kesatuan sekerja, parti politik, kelab sosial, kelab golf)	
16	Derma kepada badan agama / institusi kebajikan	
17	Hadiah berupa wang tunai dan / atau mata benda Nyatakan :_____	
18	Pembayaran wang kepada isi rumah lain	
19	Pembayaran balik pinjaman	
20	Pembayaran sewa beli - Ansuran	
21	Tambahan kepada wang simpanan (cth: tabung, pejabat pos, bank, rumah)	
22	Amaun dilaburkan	
23	Pinjaman dikeluarkan	
24	Bayaran sewa kabel rangkaian televisyen	
25	Zakat / Fitrah	
26	Bayaran saman (cth: saman jalanraya, dll)	
27	Perbelanjaan lain	
28	Adakan anda tinggal dirumah sendiri?	**YA**
		TIDAK

Appendix 3: Approval letters

1. Education Policy Research and Planning Division, Ministry of Education (Malay version - Original)
2. Education Policy Research and Planning Division, Ministry of Education (English version – Translated)
3. Economic Planning Unit, Prime Minister's Department (Malay version - Original)
4. Economic Planning Unit, Prime Minister's Department (English version – Translated)
5. Department of Private Education, Ministry of Education (Malay version - Original)
6. Department of Private Education, Ministry of Education (English version - Translated)
7. Letter to the parent explaining the research (Malay version)
8. Letter to the parent explaining the research (English version)
9. Letter to the principal explaining the research (Malay version)
10. Letter to the principal explaining the research (English version)

Appendix 3 (1)

Education Policy Research and Planning Division, Ministry of Education
(Malay version - Original)

KEMENTERIAN PENDIDIKAN MALAYSIA
BAHAGIAN PERANCANGAN DAN PENYELIDIKAN DASAR PENDIDIKAN
PARAS 2, 3 DAN 5, BLOK J
PUSAT BANDAR DAMANSARA
50604 KUALA LUMPUR
MALAYSIA

Telefon : 03-20986900
Faks : 03-20954960
Laman Web : http://161.142.144.

Rujukan Kami : KP (BPPP) 603/008( )
Tarikh : 16 Julai 2003

Ketua Pengarah,
Unit Perancang Ekonomi,
Jabatan Perdana Menteri,
Blok B5 dan B6,
Kompleks Jabatan Perdana Menteri,
Pusat Pentadbiran Kerajaan Persekutuan,
62502 PUTRAJAYA.
(U/P : Robatul Adayiah Mohd Isa)

Puan,

Menjalankan Penyelidikan Di Malaysia

Adalah saya dengan hormatnya merujuk perkara di atas.

2. Untuk makluman puan, Puan. Hjh. Nor Shirin binti Haji. Md. Mokhtar adalah seorang penuntut warganegara Malaysia yang sedang menuntut di luar negara dan ingin menjalankan kajian yang bertajuk " **Costs Of Goverment And Private Schools In Malaysia** "

3. Kami telah meneliti kertas cadangan penyelidikan beliau dan mendapati kajian tersebut tidak bercanggah dengan peraturan dan syarat yang berkaitan Dasar Pendidikan Kebangsaan.

4. Sehubungan itu, Kementerian Pendidikan menyokong agar pihak puan dapat memberi kelulusan kepada pemohon untuk menjalankan kajian.

5. Bersama surat ini disertakan sesalinan kertas cadangan kajian yang berkaitan.

Sekian,terima kasih.

"BERKHIDMAT UNTUK NEGARA"

Saya yang menurut perintah,

(Dr. Mohd. Sahandri Gani bin Hj. Hamzah)
b.p. Pengarah
Bahagian Perancangan dan Penyelidikan Dasar Pendidikan
Kementerian Pendidikan Malaysia.

Appendix 3 (2)

Education Policy Research and Planning Division, Ministry of Education
(English version – Translated version)

Ministry of Education Malaysia
Education Policy Research and Planning Division
Damansara Town Center
50604 Kuala Lumpur
MALAYSIA

Director General
Economic Planning Unit
Prime Minister Department
Block B5 and B6
Prime Minister Department Complex
62502 PUTRAJAYA.
(Attn: Robatul Adayiah Mohd Isa)

July 16, 2003

Madam,

Re: Research Study in Malaysia

The above subject matter refers.

2. For your information, Mdm. Hjh Nor Shirin Hj Md. Mokhtar is a Malaysian student who is currently studying abroad and she wishes to conduct a research on **"Costs of Government and Private Schools in Malaysia".**

3. We have examined her proposal paper and have learned that the study has not violated any conditions and terms concerning to the National Education Policy.

4. Accordingly, the Ministry of Education supports your approval, for her to conduct the research.

5. A copy of the proposal paper is attached herewith.

Thank you.

"SERVE THE COUNTRY"

Yours truly,

Dr Mohd Sahandri Gani Hj. Hamzah
for
Education Policy Planning and Research Division
Ministry of Education

Appendix 3 (3)

Economic Planning Unit, Prime Minister's Department
(Malay version - Original)

UNIT PERANCANG EKONOMI
Economic Planning Unit
JABATAN PERDANA MENTERI
Prime Minister's Department
BLOK B5 & B6,
PUSAT PENTADBIRAN KERAJAAN PERSEKUTUAN
62502 PUTRAJAYA,
MALAYSIA

Telefon: 88883333
Fax: ~~603-88883798~~

Ruj. Tuan:
Your Ref:

Ruj. Kami: UPE: 40/200/19 SJ.1115
Our Ref:

Tarikh: 13Ogos 2003
Date:

Puan Hajah Nor Shirin bt Haji Md. Mokhtar,
No. 42, Lorong Za'aba,
Taman Tun Dr. Ismail,
60000 Kuala Lumpur.

Puan,

Permohonan Menjalankan Penyelidikan Di Malaysia

Merujuk kepada perkara di atas, sukacita dimaklumkan bahawa permohonan puan telah diluluskan oleh **Jawatankuasa Penggalakan dan Penyelarasan Penyelidikan Unit Perancang Ekonomi.**

2. Puan dikehendaki datang ke pejabat ini untuk mendapatkan surat kebenaran menjalankan penyelidikan dengan membawa **dua keping gambar.** Sila ambil perhatian bahawa puan dikehendaki mematuhi semua peraturan yang dikenakan oleh agensi-agensi yang berkaitan dengan kajian puan.

3. Puan juga dikehendaki menghantar ke pejabat ini sesalinan laporan awal sebaik saja tamat menjalankan penyelidikan dan laporan akhir/thesis apabila siap sepenuhnya. Puan adalah bertanggungjawab menghantar sesalinan thesis atau lain-lain penerbitan yang dihasilkan daripada penyelidikan ini kepada semua agensi yang terlibat di dalam kajian puan.

Perhatian

Surat ini adalah untuk makluman mengenai kedudukan permohonan penyelidikan puan dan tidak boleh digunakan sebagai pas penyelidikan.

Sekian terima kasih

"BERKHIDMAT UNTUK NEGARA"

Saya yang menurut perintah,

Robayotul Isa

(ROBATUL ADAYIAH MOHD ISA)
bp. Ketua Pengarah,
Unit Perancang Ekonomi,
(Seksyen Ekonomi Makro & Penilaian)
E.mail: robatul @epu.jpm.my

s.k.

Pengarah,
Kementerian Pendidikan Malaysia,
Bahagian Perancangan Dan Penyelidikan Dasar Pendidikan,
Paras 2, 3 dan 5, Blok J,
Pusat Bandar Damansara,
50604 Kuala Lumpur.

Appendix 3 (4)

Economic Planning Unit, Prime Minister's Department
(English version – Translated)

Economic Planning Unit
Prime Minister's Department
Federal Government Administration Center
62502 PUTRAJAYA
MALAYSIA

Hjh Nor Shirin Md Mokhtar
42, Lorong Zaaba
Taman Tun Dr Ismail
60000 Kuala Lumpur

August 13, 2003

Madam,

RE: APPLICATION TO CONDUCT A RESEARCH IN MALAYSIA

Pertaining to the above subject, we are pleased to inform you that your application has been approved by the **Research Development and Coordination Committee Economic Planning Unit.**

2. You are requested to pick up the research approval letter and to bring along with 2 passport photos. Please note that you are requested to comply with all conditions given by the agencies involved in your research.

3. You are also requested to send a copy of preliminary report of the research as well as a copy of final and completed thesis to this office. You are responsible to send a copy of the thesis and any publication related to the research to all agencies involved.

Note:

This letter serves as an information notice on your status of research application and not to be used as research permit.

Thank you.

"SERVE THE COUNTRY"

Yours truly,

(ROBATUL ADAYIAH MOHD ISA)
for
Director General
Economic Planning Unit
E.mail: robatul@epu.jpm.my

cc.

Director
Ministry of Education
Education Policy Planning and Research Division
Damansara Town Center
50604 Kuala Lumpur

Appendix 3 (5)

Department of Private Education, Ministry of Education
(Malay version - Original)

JABATAN PENDIDIKAN SWASTA,
(DEPARTMENT OF PRIVATE EDUCATION)
KEMENTERIAN PENDIDIKAN MALAYSIA
(MINISTRY OF EDUCATION MALAYSIA)
PARAS 1, BLOK K
PUSAT BANDAR DAMANSARA
50604 KUALA LUMPUR

Telefon (*Telephone*) : 603-20986900 / 603-20983674
Faks (*Fax*) : 603-20935463

Ruj.Kami: KP(JPS)5181/01/31/001/Jld.3 (35)
Tarikh : 11 Ogos 2003

Kepada

Sesiapa yang berkenaan.

Yang Berbahagia Datuk/Dato'/Datin/Tuan/Puan,

Sokongan Menjalankan Penyelidikan Bertajuk "Analisa Kos Di Sekolah Menengah Kerajaan dan Sekolah Menengah Swasta Di Malaysia"

Perkara di atas adalah dirujuk dengan segala hormatnya.

2. Dengan ini adalah diperakukan bahawa **Hjh. Nor Shirin bt. Hj. Md.Mokhtar (No.Kad Pengenalan: 670823-10-6336)** sedang menjalankan penyelidikan yang bertajuk **"Analisa Kos Di Sekolah Menengah Kerajaan dan Sekolah Menengah Swasta Di Malaysia"**. Sehubungan itu, sukacita dimaklumkan bahawa Jabatan ini menyokong beliau untuk menjalankan penyelidikan tersebut. Oleh itu kerjasama dari pihak Y. Bhg. Datuk/Dato'/Datin/Tuan/Puan untuk beliau meneruskan penyelidikan tersebut amatlah diharapkan.

Sekian, terima kasih.

'BERKHIDMAT UNTUK NEGARA'

Saya yang menurut perintah,

(ZAHARAH BT. MOHD.SALLEH)
b.p. Pengarah
Bahagian Perancangan dan Penyelidikan
Jabatan Pendidikan Swasta
Kementerian Pendidikan Malaysia

No.Tel : 20986954 (talian terus)
No.Fax : 20959848
E-mail : harazah@jps.moe.gov.my

(Sila catatkan rujukan Jabatan ini apabila berhubung)
(Please quote our reference number in future correspondence)
E-mail : jps@jps.moe.gov.my Laman web(website) http://www2.moe.gov.my/jps

Appendix 3 (6)

Department of Private Education, Ministry of Education
(English version – Translated)

DEPARTMENT OF PRIVATE EDUCATION
MINISTRY OF EDUCATION MALAYSIA
LEVEL 1, BLOCK K
PUSAT BANDAR DAMANSARA
50604 KUALA LUMPUR

TEL: 603 20986900
FAX: 603 20935463

Our Ref: KP(JPS)5181/01/31/001/Jld.3(35)
Date: August 11, 2003

To Whom It May Concern,

Dear Sir or Madam,

Support for Conducting Research On "Cost Analysis For The Government And Private Schools In Malaysia"

The above subject matter is referred.

2. This is to certify that the Department supports Hjh. Nor Shirin bt. Md. Mokhtar (I/D #: 670823-10-6336), who is conducting a research on **"Cost Analysis For The Government And Private Schools In Malaysia".** Your cooperation in assisting her in the research is very much appreciated.

Thank you.

Yours faithfully,

(ZAHARAH BT MOHD SALLEH)
for
Director
Planning and Research Division
Department of Private Education
Ministry of Education Malaysia

Tel : 20986954 (DL)
: 20959848 (GL)
Email : harazah@jps.moe.gov.my

Appendix 3 (7)

Letter to the parent explaining the research
(Malay version)

Nor Shirin Md Mokhtar
42 Lorong Zaaba,
Taman Tun Dr Ismail,
60000 Kuala Lumpur
03- 772 89291

509 West 121st.Street #808
New York NY 10027
U.S.A
212- 678 3605

Kepada,
Ibubapa/Penjaga,

Saya adalah pelajar kedoktoran di Columbia University, New York City, U.S.A. Buat masa ini saya sedang melaksanakan penyelidikan disertasi bertajuk 'Kos Sekolah-Sekolah Menengah Kerajaan dan Swasta di Malaysia'. Objektif umum kajian saya adalah untuk mengkaji kos pendidikan bagi sekolah menengah kerajaan dan swasta.

Saya akan menganalisa anggaran kos sebenar pendidikan bagi seorang anak. Kajian ini akan menghasilkan maklumat kepada pihak kerajaan dan juga swasta, disamping memberi maklumat kepada ibubapa mengenai perbelanjaan yang melibatkan pendidikan bagi seorang pelajar/anak.

Maklumbalas tuan di dalam kajian ini adalah sangat penting. Kajian ini akan dapat membantu para pembentuk polisi dan juga ibubapa di dalam mengendalikan urusan sistem pendidikan secara lebih berkesan. Terdapat dua set soal-selidik di dalam kajian ini. Pertamanya adalah kepada pengetua, dan keduanya adalah kepada ibubapa/penjaga.

Maklumat dari soal-selidik ini akan dirahsiakan, dan responden adalah rambang (tiada identiti). Saya faham bahawa tiada sebarang rujukan kepada nama dan identiti pelajar , ibubapa atau pengetua akan dinyatakan di dalam penyelidikan ini.

Saya amat menghargai bantuan dan sokongan tuan di dalam usaha murni penyelidikan ini. Sila hubungi saya sekiranya ada terdapat sebarang pertanyaan dan komen. Terima kasih atas kerjasama tuan.

Yang benar,

"dengan menyiapkan dan menghantar semula soal-selidik ini, tuan adalah bersetuju untuk menyetai penyelidikan ini"

Nor Shirin Md Mokhtar

Appendix 3 (8)

Letter to the parent explaining the research
(English version)

Nor Shirin Md Mokhtar
42 Lorong Zaaba,
Taman Tun Dr Ismail,
60000 Kuala Lumpur
03- 772 89291

509 West 121st.Street #808
New York NY 10027
U.S.A
212- 678 3605

Dear Parent(s)/Guardian(s),

I am a doctoral student at Columbia University, New York City, U.S.A. Currently, I am conducting a study for my dissertation on "Costs of Government and Private Secondary Schools in Malaysia." The general objective of my study is to examine costs of education in government secondary schools and private schools.

The purpose of the study is to estimate the true costs of educating a secondary school child. The findings of this study will inform the government and the private sector, as well as parents, by accurately indicating educational and other sources of spending. This in turn will assist the government, and private sector, as well as parent(s) and guardian(s) to provide sufficient educational spending for secondary school children.

Your response in this study is very important. This study will assist the policymakers and parents in dealing with the educational system effectively.

The information from this questionnaire will be kept **confidential,** and respondents will be kept **anonymous**. I understand that no reference to the names or the identities of the students, parents, or principals will be made in any phase of this research.

I would highly appreciate your help and support in this philanthropic endeavor. Please do not hesitate to inquire if you have further questions and comments. Thank you for your cooperation.

Yours sincerely,

"by completing and returning the survey the subject has given his or her consent to participate."

Nor Shirin Md Mokhtar

Appendix 3 (9)

Letter to the principal explaining the research
(Malay version)

Nor Shirin Md Mokhtar
42 Lorong Zaaba,
Taman Tun Dr Ismail,
60000 Kuala Lumpur
03- 772 89291

509 West 121st.Street #808
New York NY 10027
U.S.A
212- 678 3605

Kepada,
Sekolah Menengah Kerajaa/Swasta_____

Saya adalah pelajar kedoktoran di Columbia University, New York City, U.S.A. Buat masa ini saya sedang melaksanakan penyelidikan disertasi bertajuk 'Kos Sekolah-Sekolah Menengah Kerajaan dan Swasta di Malaysia'. Objektif umum kajian saya adalah untuk mengkaji kos pendidikan bagi sekolah menengah kerajaan dan swasta.

Saya akan menganalisa anggaran kos sebenar pendidikan bagi seorang anak. Kajian ini akan menghasilkan maklumat kepada pihak kerajaan dan juga swasta, disamping memberi maklumat kepada ibubapa mengenai perbelanjaan yang melibatkan pendidikan bagi seorang pelajar/anak.

Maklumbalas tuan di dalam kajian ini adalah sangat penting. Kajian ini akan dapat membantu para pembentuk polisi dan juga ibubapa di dalam mengendalikan urusan sistem pendidikan secara lebih berkesan. Terdapat dua set soal-selidik di dalam kajian ini. Pertamanya adalah kepada pengetua, dan keduanya adalah kepada ibubapa/penjaga.

Maklumat dari soal-selidik ini akan dirahsiakan, dan responden adalah rambang (tiada identiti). Saya faham bahawa tiada sebarang rujukan kepada nama dan identiti pelajar , ibubapa atau pengetua akan dinyatakan di dalam penyelidikan ini.

Saya amat menghargai bantuan dan sokongan tuan di dalam usaha murni penyelidikan ini. Sila hubungi saya sekiranya ada terdapat sebarang pertanyaan dan komen. Terima kasih atas kerjasama tuan.

Yang benar,

"dengan menyiapkan dan menghantar semula soal-selidik ini, tuan adalah bersetuju untuk menyetai penyelidikan ini"

Nor Shirin Md Mokhtar

Appendix 3 (10)

Letter to the principal explaining the research
(English version)

Nor Shirin Md Mokhtar
42 Lorong Zaaba,
Taman Tun Dr Ismail,
60000 Kuala Lumpur
03- 772 89291

509 West 121st.Street #808
New York NY 10027
U.S.A
212- 678 3605

To,
Public/Private Secondary School_____

Dear Principal,

I am a doctoral student at Columbia University, New York City, U.S.A. Currently, I am conducting a study for my dissertation on "Costs of Government and Private Secondary Schools in Malaysia." The general objective of my study is to examine costs of education in government secondary schools and private schools.

The purpose of the study is to estimate the true costs of educating a secondary school child. The findings of this study will inform the government and the private sector, as well as parents, by accurately indicating educational and other sources of spending. This in turn will assist the government, and private sector, as well as parent(s) and guardian(s) to provide sufficient educational spending for secondary school children.

Your response in this study is very important. This study will assist the policymakers and parents in dealing with the educational system effectively. There are two sets of questionnaires in this study, one to principal and the other to parents.

The information from this questionnaire will be kept **confidential,** and respondents will be kept **anonymous**. I understand that no reference to the names or the identities of the students, parents, or principals will be made in any phase of this research.

I would highly appreciate your help and support in this philanthropic endeavor. Please do not hesitate to inquire if you have further questions and comments. Thank you for your cooperation.

Yours sincerely,

"by completing and returning the survey the subject has given his or her consent to participate."
Nor Shirin Md Mokhtar

Appendix 4: Informed consent form: Participant's rights

TEACHERS COLLEGE
COLUMBIA UNIVERSITY

Informed Consent Form: **PARTICIPANT'S RIGHTS**

Principal Investigator: Nor Shirin Md Mokhtar
Research Title: Costs of Government Schools and Private Schools in Malaysia
Researcher's Phone: 03- 772 89291

- I have read and discussed the Research Description with the researcher. I have had the opportunity to ask questions about the purposes and procedures regarding this study.
- My participation is voluntary. I may refuse to participate or withdraw from participation at any time without jeopardy to future medical care, employment, student status or other entitlements.
- The research may withdraw me from the research at his/her professional discretion.
- If during the course of the study, significant new information that has been developed becomes available which may relate to my willingness to continue to participate, the investigator will provide this information to me.
- Any information derived from the research project that personally identifies me will not be voluntarily released or disclosed without my separate consent, except as specifically required by law.
- If any time I have any questions regarding the research or my participation, I can contact the investigator, who will answer my questions. The investigator's phone number is 03- 772 89291
- If at any time I have comments or concerns regarding the conduct of the research or questions about my rights as a research subject, I should contact the Teachers College, Columbia University Institutional Review Board/IRB. The phone number for the IRB is (212) 678-4105. Or, I can write to the IRB at Teachers College, Columbia University, 525W. 120th Street, New York, NY 10027, Box 151.
- I should receive a copy of the Research Description and this Participant's Rights document.
- If video and/or audio taping is part of this research project, I ( ) consent to be video/audio taped. I ( ) do NOT consent to be video/audio taped. The written, video and/or audio taped materials will be viewed only by the principal investigator and members of the research team.
- Written, video and/or audio taped materials ( ) may be viewed in an educational setting outside the research ( ) may NOT be viewed in an educational setting outside the research.
- My signature means that I agree to participate in this study.

Participant's signature: _____ **Date:** ___/___/_____
Name: _____
If necessary:
Guardian's Signature/consent _____ **Date:** ___/___/_____
Name: _____