



United Nations  
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UNESCO Bangkok  
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Secondary Teacher  
Policy Research in Asia

Towards Providing  
Quality Secondary  
Education: Training and  
Retaining Quality  
Teachers in Malaysia



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# Secondary Teacher Policy Research in Asia

## Towards Providing Quality Secondary Education: Training and Retaining Quality Teachers in Malaysia

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# Foreword

With the gradual attainment of universal primary education, governments are shifting their attention to secondary education. Responding to the increasing demand for secondary education presents serious challenges and major opportunities in the quest for Education For All (EFA), and countries are striving to find policy responses to address these emerging issues.

It is clear that teachers play a fundamental role in addressing challenges faced by secondary education. Ensuring the presence of competent secondary teachers in urban and rural areas is a major concern in both quantitative and qualitative terms. Existing studies on teacher-related issues and analyses of teacher policy in developing countries tend to focus on primary education, probably due to the special emphasis given to primary education in the EFA process. In order to fill the gaps and respond to the increasing demand for quality secondary education, the Education Policy and Reform (EPR) unit of the UNESCO Asia and Pacific Regional Bureau for Education (UNESCO Bangkok) coordinated a regional research study on secondary teacher policy and management in 2007 and 2008.

This series includes a regional synthesis paper on comparative assessment of issues and policies affecting secondary teachers in East and South-East Asia, and five case studies: Lao People's Democratic Republic, Malaysia, People's Republic of China, Republic of Korea, and Thailand. Three major areas related to secondary teachers are discussed in the case studies: quantitative analysis of demand and supply of secondary teachers, quality of secondary teachers, and compensation. Each study is presented as a summary of the original study, and gives an overview of the status and issues of the country's secondary education system. Researchers and officials from several universities and education ministries collaborated in the preparation of the study. UNESCO Bangkok would like to sincerely thank all those individuals and institutions who provided their expertise and professional experience to this research.

The findings presented in the series are intended to help governments gain insight into policy for secondary teachers across a diverse range of countries, and draw lessons for possible policy responses to challenges and problems in the expansion of secondary education.



Gwang-Jo Kim  
Director  
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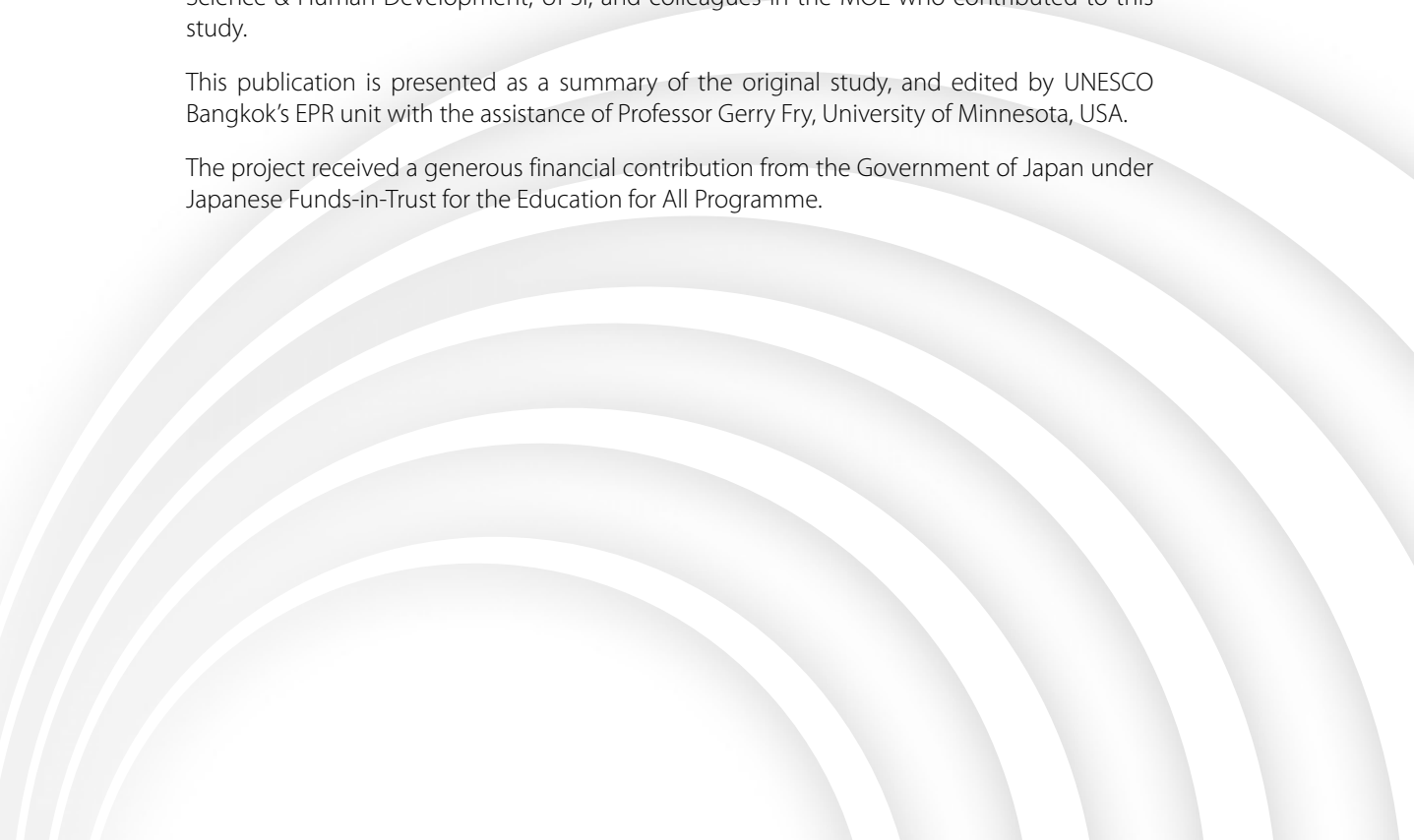
This publication is part of a series of case studies on secondary teacher policy and management initiated and coordinated by the Education Policy and Reform (EPR) unit at UNESCO Bangkok.

The study on Malaysia was prepared by Siti Eshah Mokshein of the Ministry of Education, Malaysia, Hussein Haji Ahmad of the Institute of Principalship Studies, University of Malaya, and Athena Vongalis-Macrow, Deakin University, Australia. Rahimah Haji Ahmad from the Institute of Principalship, along with Roziyah Abdullah and Rose Amnah Abd. Rauf from the Ministry of Education (MOE) also contributed to the study.

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This publication is presented as a summary of the original study, and edited by UNESCO Bangkok's EPR unit with the assistance of Professor Gerry Fry, University of Minnesota, USA.

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# Contents

List of Tables and Figures . . . . .	i
List of Abbreviations . . . . .	ii
<b>Section 1: Brief Overview of Malaysia's Development . . . . .</b>	<b>1</b>
<b>Section 2: Overview of Secondary Education Development</b>	
2.1 The Secondary Education System: Purpose and Structure. . . . .	4
2.2 Enrolment Trends in Secondary Education . . . . .	5
2.3 Academic Achievement: Accomplishments and Concerns . . . . .	9
2.4 Diversification of Secondary Education . . . . .	10
2.5 Language Issues in Education . . . . .	11
<b>Section 3: Quantitative Aspects of Secondary Teachers</b>	
3.1 Demand for Secondary School Teachers . . . . .	13
3.2 Shortages and Surpluses in Subject Specialization. . . . .	13
3.3 Future Demand for Teachers . . . . .	14
<b>Section 4: Quality of Teachers</b>	
4.1 Process for Selecting Pre-Service Teacher Trainees . . . . .	15
4.2 Teacher Preparation Programmes . . . . .	16
4.3 Qualification Upgrading and Professional Development . . . . .	18
4.4 Initiatives Aimed at Improving Educational Quality . . . . .	19
<b>Section 5: Teacher Compensation</b>	
5.1 Salary, Benefits and Attractiveness of the Profession . . . . .	21
5.2 Appraisal, Recognition and Promotion . . . . .	23
<b>Section 6: Conclusions, Discussion, and Policy Implications</b>	
6.1 Providing Quality Education: Policy Challenges for Secondary Education . . . . .	25
6.2 Future Challenges for Secondary Education Teachers in Malaysia . . . . .	26
References . . . . .	27

# List of Tables and Figures

Table 1: Trends in Budget Allocation for Secondary Education (2000-2005) . . . . .	3
Table 2: Trends in Participation Rates in MOE Schools (1970-2005) . . . . .	6
Table 3: Enrolments in MOE Secondary Schools by State. . . . .	7
Table 4: Participation Rates in Secondary Education by State and Gender (2005) . . . . .	8
Table 5: Number of MOE Schools and Classes by Type of Schools (1995-2005). . . . .	10
Figure 1: Salary Progression for Teachers and Several Other Public Services . . . . .	22

# List of Abbreviations

BISP	<i>Bayaran Insentif Subjek Pendidikan bagi Pegawai Perkhidmatan Pendidikan Bidang Sains, Matematik dan Bahasa Inggeris</i> (Incentive Educational Subjects Payment for Science, Mathematics and English Education Officers)
<i>Bumiputera</i>	Literally means “prince of the soil”, i.e. the Malay and indigenous people
CCC	Central Curriculum Committee, Ministry of Education
CDC	Curriculum Development Centre
CDP	Continuous Professional Development
COLA	Cost of Living Allowance
DEO	District Education Office
DPLI	Diploma <i>Pendidikan Lepas Ijazah</i> (Post-graduate Diploma in Education)
EFA	Education for All
ETD	Educational Technology Division
ETeMS	English for the Teaching of Mathematics and Science
Forms 1-3	Lower secondary education
Forms 4-5	Upper secondary education
GNP	Gross National Product
GDP	Gross Domestic Product
IAB	Institute Aminuddin Baki
ICT	Information and Communication Technology
InSaK	Teachers Personality Inventory
ISMP	<i>Ijazah Sarjana Muda Pendidikan</i> (Integrated Bachelor Degree with Education)
In-Set	In-Service Training
KAA	Religious Education System
KBSM	Integrated Secondary School Curriculum



LPBS	<i>Latihan Perguruan Berasaskan Sekolah</i> (school-based on the job training)
MOE	Ministry of Education
MOHE	Ministry of Higher Education
MSC	Multimedia Super Corridor
M-TeST	Malaysian Teachers Selection Test
NEP	National Education Philosophy (1987)
OECD	Organization for Economic Co-operation and Development
PIPP	<i>Pelan Induk Pembangunan Pendidikan</i> (Education Development Master Plan) 2006-2010
POL	People's Own Language
PPP	Purchasing Power Parity (adjusted economic income statistics for differential costs in various countries)
PSTF	Poor Student's Trust Fund
PTK	<i>Penilaian Tahap Kecekapan</i> (Competency Level Assessment)
RIMUP	Student Integration Plan for Unity
RM	Malaysian currency, the ringget*
RMK-9	<i>Rancangan Malaysia Kesembilan</i> (Ninth Malaysia Plan)
SEAMEO-RECSAM	South-East Asian Ministers of Education Organization – Regional Centre for Education in Science and Mathematics Education
SED	State Education Department
SJKC	<i>Sekolah Jenis Kebangsaan</i> (China) (Chinese language elementary school)
SJKT	<i>Sekolah Jenis Kebangsaan</i> (Tamil) (Tamil language elementary school)
SK	<i>Sekolah Kebangsaan</i> (Malay language elementary school)
SQEM	Standards for Quality Education in Malaysian Schools
SSM	New Remuneration System
STPM	<i>Sijil Tinggi Pelajaran</i> Malaysia (HSC equivalent to the Cambridge High School 'A' level Certificate)
TIMSS	Trends in International Mathematics and Science Study
TTI	Teacher Training Institute (since 2007; also known as IPG)
UPSR	<i>Ujian Pencapaian Sekolah Rendah</i> (Primary School Achievement Test)

\*1 RM = 0.2954 USD (November, 2009)

## Section 1

# Brief Overview of Malaysia's Development

Malaysia is comprised of two parts: a western peninsula and two eastern states that are on the northern part of the island of Borneo, namely Sabah and Sarawak. It is a multicultural, multilingual, and multiethnic nation. The Malaysian population is estimated to consist of 62 percent *Bumiputera* (51 percent Malay and 11 percent indigenous), 23.1 percent Chinese, 7.1 percent Indian, and 7.0 percent others. Unlike other Asian countries, such as Japan, Korea, and Thailand, with extremely low fertility rates, Malaysia's rate is well above replacement at 2.98, resulting in an annual population growth of 1.74 percent.

In 1991, Malaysia established a visionary policy, titled Vision 2020, to transform the country into a developed nation by 2020 (Government of Malaysia, 2008b). The key strategic challenges presented by Vision 2020 include establishing a united nation; creating a mature, ethical, and effective inclusive democracy; and establishing a caring and economically just society. The future prosperity and related social and economic transformation relies heavily on a competitive and robust economy supporting social reforms.

Malaysia's economic performance over the last two decades has been sufficiently successful to meet the goals set by Vision 2020. From the late 1980s to the mid 1990s, Malaysia's annual gross domestic product (GDP) growth was an impressive nine percent. Over this period, there was a remarkable reduction in poverty and enhancement of living standards. In 2008, per capita GDP was USD\$15,700 (PPP), and the growth rate was estimated at 5.5 percent.

This rapid economic growth has transformed the structure of the economy. Between 1990 and 2003, for example, employment in the agricultural sector decreased from 26 percent to 13.8 percent of the workforce; while employment in the manufacturing sector increased from 19.9 percent to 27.9 percent; and employment in the financial services sector grew from 3.9 percent to 6.2 percent. Most importantly, Malaysia has maintained a competitive edge in high tech exports, surpassing neighbouring countries such as Indonesia and Thailand over the last 10 years (World Bank, 2007). The Malaysian economy remains strong, and industrial production continues to grow four to six percent per year.

As the economy has grown, there have been comparable changes in Malaysian society. The reduction of the agricultural sector, together with increased employment prospects within urban areas, has led to a greater increase in the percentage of the urban population. In 2005,

an estimated 68 percent of the population lived in urban settings and the urbanization of the population continues to grow at a rate of three percent per year (United Nations Population Division, 2007). The extensive urbanization presents a number of challenges for both the Malaysian and state governments. The lack of access to quality healthcare, education, and employment for rural and remote populations requires appropriate policies and strategies to reduce social and economic imbalances.

Based on its strong economic performance, developing a knowledge-based economy has become a priority in Vision 2020 to reposition Malaysia alongside the economies of developed nations. Reflective of Vision 2020, Malaysia created the Multimedia Super Corridor (MSC) to enable the country to leapfrog ahead into the newest technological frontiers with many implications for educational development and priorities (Bunnell, 2004). The growth of a knowledge-based economy requires a higher level of education across the population in order to enhance human capital by raising the productivity of workers and creating a culture of innovation and dynamism needed to strengthen both individual and institutional capacities.

## Section 2

# Overview of Secondary Education Development

Given the goal of becoming a knowledge-based economy, improving the quality of education across all sectors is a major priority for the Malaysian government. For this reason, the education allocation represents a sizeable portion of the total government budget each year. Between 2000 and 2005, for example, education expenditure accounted for about 20 percent of the government's budget, and 5.7 percent of gross national product (GNP). Data in Table 1 indicates that, although there was an upward trend in the budget allocation for education over the years between 2000 and 2005, there was a drop in percentage for 2005 to 14.24 from 21.28 in the previous year. However, in terms of actual budget allocations, there was an increase for education in 2005 compared to 2004. This drop in percentage was probably due to the much larger amount of the total government expenditure for the year 2005. Moreover, there has been a significant increase in the proportion of the education budget devoted to secondary education, rising from 16.46 percent in 2003 to 30.25 percent in 2005.

**Table 1: Trends in Budget Allocation for Secondary Education (2000-2005)**

Year	Public Expenditure on Education as % of Total Government Expenditure	Public Expenditure on Education as % of GNP	% of Educational Budget on Secondary Education	Public Expenditure on Secondary Education (RM)	Per Student Cost (RM)
2000	18.05%	4.76%	21.22%	2,987,587,800	1,531.5
2001	20.43%	5.70%	16.91%	3,145,000,100	1,594.9
2002	20.61%	6.32%	19.43%	4,025,919,000	2,042.4
2003	23.86%	7.42%	16.46%	4,312,576,000	2,164.8
2004	21.28%	6.26%	20.85%	4,991,467,300	2,466.3
2005	14.24%	3.83%	30.25%	5,057,590,900	2,438.9
Average	19.74%	5.72%	20.85%	4,086,690,183	2,046.2

Source: MOE (2007b).

Despite the strong emphasis on education, the highest educational attainment of the adult population (25-64 years old) by level is still relatively low. In 2003, about 31.5 percent of the adult population had attained an upper secondary education and 21.3 percent had attained a lower secondary education. Education in Malaysia has undergone rapid changes in the last 50 years. From a diverse and fragmented system of education based on communal needs, it has evolved into an integrated national system of education that is responsive to both national needs and international economic and technological developments. The achievement of universal primary education has led to the expansion of educational opportunities for more students at the secondary level.

Major recent policy reforms include the use of English as the medium of instruction in the teaching of science and mathematics in schools, or English for the Teaching of Mathematics and Science (ETeMS), which was introduced in 2003. Some other major curricular changes include the Integrated Secondary School Curriculum (KBSM) introduced in 1989. In the teacher education programme, the priority has shifted from providing sufficient teachers for expanding secondary education enrolments, to providing sufficient quality teachers to provide quality education for all secondary school-aged children.

Comprehensive educational plans have been clearly articulated in the Malaysia Five-Year Long-Term Perspective Plans. In 2001, the Ministry of Education (MOE) produced its own blueprint called the Education Development Plan 2001-2010, containing more detailed educational goals, priorities, programmes, and projects. The MOE also developed the Education Development Master Plan (PIPP) (2006-2010) in 2006 to serve as a comprehensive implementation guideline for education development under the Ninth Malaysia Plan (RMK-9 2006-2010) (Government of Malaysia, 2006). The PIPP specifies the focus, objectives, action plan, main strategies, and performance indicators related to six key thrusts. The thrusts identified are: the building of a nation-state; developing human capital; enhancing national schools; narrowing educational gaps; enhancing the teaching profession; and accelerating attainment of the excellence of educational institutions.

The Malaysian education system is highly centralized, and educational authority rests with the MOE. The growing importance and complexity of educational needs and participation led the Malaysian government in 2004 to create two ministries of education, namely the MOE responsible for the primary and secondary levels, and the Ministry of Higher Education (MOHE) responsible for the tertiary level. This administrative restructuring has not only resulted in changes in the organization of the educational system but also generated many new policies, procedures, and regulations in terms of educational governance, organizational management, and leadership.

## 2.1 The Secondary Education System: Purpose and Structure

The Malaysian secondary education system is envisaged to implement the integrated national secondary curriculum in line with the goals of the 1987 National Education Philosophy (NEP). There is an emphasis on critical and creative thinking skills, and on science and technology. The system is geared towards providing secondary education to give opportunities to the relevant

age group, adequate and quality teaching and learning facilities in line with the development of Information and Communication Technology (ICT), and to improve proficiency in both the Malay and English languages. Furthermore, the sub-sector is expected to produce students who have positive attitudes and values, social skills, and creative minds to enhance success either for future education or employment opportunities (MOE, 2003).

Under the national education policy, Malaysia provides 11 years of free basic education to all school age children from age six-plus to 16+. After the completion of six years of primary school, students move into three years of lower secondary school (Forms 1-3). Upper secondary school consists of a further two years of study (Forms 4-5). With the automatic promotion from lower to upper secondary introduced in 1992, all students now have equal opportunity for five years of secondary education. Throughout their schooling, students are assessed in public examinations at various levels. The most important examination is at the end of upper secondary education, which influences their post-secondary opportunities or employment options, if students go directly into the job market. Upon completion of two years of upper secondary education, students can either continue to Form 6 (a two-year post-secondary education in a humanities or science track); or matriculation programmes (pre-university education programmes); or enrol in diverse programmes in other institutions such as polytechnics, community colleges, teacher training institutions, vocational training institutions; or go directly into the labour market. Students who opt for Form 6 will take the *Sijil Tinggi Perskolahan* Malaysia (STPM) examination at the end of the two-year programme.

## 2.2 Enrolment Trends in Secondary Education

In the last 40 years, there has been a significant increase in enrolment rates, particularly at the upper secondary level. The participation rates at the lower secondary level increased from 52.2 percent in 1970 to 84.4 percent in 2005, an increase of 32.2 percent in 30 years (see Table 2). The highest increase was observed from 1970 to 1980. The increase was even higher for the upper secondary level, from 20.1 percent in 1970 to 72.6 percent in 2000 and 71.7 percent in 2005, an increase of 52.5 percent. The greatest expansion at the upper secondary level was observed from 1990 to 2000, 10 years after the rapid rate of expansion of lower secondary education. The advent of globalized economies with more emphasis on knowledge and education, coupled with the development of infrastructure, set the foundation for greater educational participation. In addition, automatic promotion from lower to upper secondary level introduced during this period contributed significantly to this phenomenal increase.

However, there are still obstacles in achieving higher participation rates, especially at the upper secondary levels. The participation rate at the upper secondary level at MOE secondary schools in 2005 was 71.7 percent, slightly lower than in 2000 (72.6 percent). This could be partly due to the expansion of the non-MOE system (private and religious schools). Estimates based on the data of examination candidates, however, showed that about eight percent of secondary school-aged children were studying in non-MOE schools in 2005.

Another dimension of participation is the survival rate at the secondary level. This refers to the percentage of students who continue to complete the various levels of secondary education. To ensure ongoing participation, the MOE instituted the automatic promotion of students

**Table 2: Trends in Participation Rates in MOE Schools (1970-2005)**

Level	1970	1980	1990	2000	2005
Lower Secondary Enrolment	378,535	809,386	942,801	1,253,029	1,322,212
LS Participation Rate	52.2%	79.9%	81.2%	83.7%	84.4%
Upper Secondary Enrolment	89,435	247,239	361,411	697,717	751,473
US Participation Rate	20.1%	38.1%	48.5%	72.6%	71.7%
Total	467,970	1,056,625	1,304,212	1,950,746	2,073,685

- Note: 1. Data does not include enrolment in non-MOE schools such as private and religious schools.  
 2. Population projection data used for the computation of participation rates includes citizens and non-citizens and was much higher than the number of live-births.  
 3. MOE schools cater mainly for the education of the children of citizens.  
 4. Population data for 1990 – 2005 used for the computation of participation rates were revised estimates based on the population censuses of 1991 and 2000.

Source: MOE (2003, p. 1-8; 2005; 2006a).

from Form 3 to Form 4, increased the number of school types to broaden educational opportunity, and introduced initiatives to encourage rural and remote students to continue in schools. The results show an increase in survival rates from 71.7 percent in 1995 to 89.7 percent in 2005 (MOE, 2007a). The survival rates from Form 3 to Form 4 have increased from 84.6 percent in 1995 to 96.3 percent in 2005. Nevertheless, participation issues persist for some areas and are reflected in recent drops in participation in secondary education, which was 89.1 percent in 2006. Possible reasons for the recent drop include increased participation in non-MOE schools and increased job opportunities. However, clear data are not available to determine whether this is a temporary or a longer-term trend in participation.

### ***Disparities in Enrolment Rates***

Enrolment in secondary education increased at an average rate of 58.9 percent across all states in Malaysia in only 15 years from 1990 to 2005. This increase, however, has not been experienced uniformly across the country as states have experienced uneven levels of development. As can be seen in Table 3, the highest increases in enrolment have been experienced in the states of Selangor (112.8 percent) and Terengganu (105.3 percent). This phenomenal increase can be attributed to the rapid socioeconomic development of these states. Terengganu, for example, was once considered one of the poorest areas in Malaysia. However, recent oil and gas discoveries have created a vast petrochemical industry which has attracted new workers and increased the standard of living for the local population. By contrast, the state of Penang, for example, which is considered a developed island-state, has

experienced much lower increases in secondary enrolments. This could be due to the already high level of participation in secondary education and, thus, educational development has reached its saturated stage.

**Table 3: Enrolments in MOE Secondary Schools by State**

State	1990	1995	2000	2005	% Increase
Johor	160,365	189,152	235,869	249,393	55.5
Melaka	47,796	52,130	63,755	64,343	34.6
N. Sembilan	61,990	75,557	89,473	88,703	43.1
Kuala Lumpur	83,771	96,209	110,474	106,085	26.6
Selangor	143,563	195,938	261,998	305,439	112.8
Perak	172,886	192,085	217,525	209,733	21.3
Kedah	95,842	119,161	150,715	160,584	67.6
Penang	87,371	95,038	105,944	106,308	21.7
Perlis	14,430	18,252	23,131	23,242	61.1
Pahang	79,787	102,803	122,908	124,914	56.6
Terengganu	52,051	73,226	96,896	106,844	105.3
Kelantan	83,821	105,354	135,823	154,155	83.9
Sabah	102,703	136,599	167,967	175,714	71.1
Labuan	-	-	-	5,486	-
Sarawak	117,836	138,080	168,268	192,742	63.6

Source: MOE (1990, 1995, 2000, 2005).

Participation rates in MOE schools by state as indicated in Table 4 show certain discernable patterns. In some states, the gross enrolment rates are more than 100 percent because the enrolment is higher than the relevant age group due to in-migration. Fast developing states like Selangor and Negeri Sembilan tend to attract larger student populations from neighbouring states, leading to a great increase in participation rates. On the contrary, enrolment rates in some less developed states are lower due to out-migration and other factors such as lack of access to resources, lack of parental support to continue schooling, employment necessity for poorer students, and affordability of schooling.

Gender patterns in educational participation at the secondary level are also listed in Table 4. In all states except Labuan, the participation of females is greater than males. Improving the participation of females in Labuan needs to be a priority; however, it is crucial that policies be



developed to promote secondary education and its value for both genders. The lower rate of participation of male students in secondary education, and subsequently higher education, has significant implications for modernization, the development of a knowledge-based economy, and productivity capacities.

Moreover, Table 4 illustrates one of the major ongoing issues for Malaysian education, namely the extent to which students in rural and remote areas participate in secondary education. The Education Act 1996 provides that all children should have equal access to education regardless of their location, socio-economic status, or gender, reflecting the important principal of fiscal neutrality (Government of Malaysia, 2002). There have been concerted efforts to address the disparity between states and the specific needs of students in particular regions and states. For example, in April 1996, the MOE released a paper entitled "Programme to Raise the Performance of Rural Schools." The policy proposed new ways of addressing rural education issues based on an intervention model inclusive of: (a) teachers, (b) students and the curriculum, (c) school resources and organization, and (d) society and environment. More recently, the emphasis has shifted towards providing financial assistance to students. As part of the Poor Students Trust Fund (PSTF), financial assistance and Tuition Voucher Schemes have been initiated to aid rural and remote students to facilitate their continued participation in education (MOE, 2004). In 2007 the MOE provided a free textbook scheme for all students, especially targeting disadvantaged students. There are, however, continuing issues arising from the lack of access to secondary schooling by rural and disadvantaged students such as a lower level of parental involvement in education, higher dropout rates, poorer levels of learning and examination achievement, and lower English language proficiency.

**Table 4: Participation Rates in Secondary Education by State and Gender (2005)**

State	Male	Female	Total
Johor	93.5%	99.3%	96.3%
Kedah	94.1%	102.2%	98.0%
Kelantan	86.9%	94.9%	90.8%
Melaka	93.3%	97.4%	95.3%
Negeri Sembilan	102.2%	106.4%	104.2%
Pahang	84.2%	89.7%	86.9%
Perak	87.0%	90.1%	88.5%
Perlis	122.4%	125.0%	123.7%
Penang	90.1%	94.9%	92.4%
Sabah	60.1%	65.5%	62.7%
Sarawak	83.7%	91.9%	87.6%
Selangor	106.5%	111.5%	108.9%

Table 4: (continued)

State	Male	Female	Total
Terengganu	86.0%	93.2%	89.5%
Kuala Lumpur	74.2%	80.0%	77.0%
Labuan	95.3%	78.7%	87.8%
<b>Malaysia</b>	<b>87.4%</b>	<b>93.0%</b>	<b>90.0%</b>

- Note: 1. Enrolment rates reported in the table include lower and upper secondary enrolments at all schools
2. Participation rates were computed using live births (citizens and non-citizens).
3. Participation rates were calculated as the total enrolment in secondary education, expressed as a percentage of the population in the age group (13+ to 16+).
4. Children born in a particular state do not necessarily get their education in that state.
5. Migration between states has caused the enrolment rates in certain states to decline while in some other states it exceeds 100%.

Source: MOE (2007b).

## 2.3 Academic Achievement: Accomplishments and Concerns

As a step towards improving quality education and competing with developed nations, Malaysia participated in the Trends in International Mathematics and Science Study (TIMSS) in 1999, 2003 and 2007. In 2003, 5,314 Malaysian students took part in the Eighth-Grade survey along with 46 other countries. The achievement of Malaysian students in TIMSS 2003 resulted in Malaysia ranking 10th in mathematics and 20th in science. Malaysia's average score for maths, which was 508, was well above the international average of 466. While the average score for science, which was 510, was also above the international average of 473. Malaysian students scored better than those from developed countries like Australia, United Kingdom, United States and New Zealand in the mathematics tests, and Norway and Italy in the science tests.

Despite Malaysia's international success in academic achievement, regional disparities within the country persist. Although access and participation in secondary education has improved for rural and remote students, their educational achievement remains lower than that of their urban counterparts. Rural students consistently perform poorly in English, mathematics, and science. Consequently, the assessment of maths and science competency in ETeMS may widen the gaps. To ensure that all students have access to quality secondary education, concerted efforts have been made in the Education Development Plan for Malaysia 2001-2010 to cater to the special needs of rural and remote students and their schools, which rely on government assistance for investment and improvement. Other than offering newer educational pathways for students at the secondary level in order to ensure their ongoing participation in education, several other concerted efforts have also been undertaken by the MOE to reduce the dropout rates for students at risk at both the primary and lower secondary levels.

To reduce the educational gap between disadvantaged and advantaged students, the MOE has allocated resources for the improvement of school infrastructure and buildings especially in rural regions. An additional RM 2.6 billion has been allocated by the MOE to improve school facilities in rural areas during the 9th Malaysia Plan. The rebuilding and upgrading of rural schools will affect 385 secondary schools in rural areas. Other equity strategies include building more residential schools, reviewing the curriculum and teaching methods so that they are more inclusive of local learning needs, attracting more teachers to rural communities, and extending and developing parental participation in school governance. These measures have been undertaken to improve educational equity and ensure greater access and participation in secondary education for all school-aged children.

## 2.4 Diversification of Secondary Education

Narrowing the education gap is a key policy commitment in Malaysia's Education Development Master Plan (PIPP) which extends the commitment to Education for All (EFA). Education for All, based on the belief in the principle that every child be given equal access to educational opportunity, has led to the creation of specially tailored educational programmes, such as academic programmes and technical and vocational programmes. It has also led to the establishment of various types of secondary schools such as fully residential schools, technical schools, religious schools, sports schools, special model schools, performing arts schools, and special education schools. Table 5 shows the distribution of these different genres of secondary education.

**Table 5: Number of MOE Schools and Classes by Type of Schools (1995-2005)**

Types of Secondary Schools	Number of Schools			Number of Classes		
	1995	2000	2005	1995	2000	2005
Regular	1,319	1,461	1,812	44,468	54,833*	62,826
Technical/Vocational	78	84	90	1,862	2,108	2,686
Fully Residential	35	38	54	859	867	1,241
Religious	41	53	55	837	1,211	1,377
Special Education	3	3	4	63	67	68
Sports	-	2	2	-	48	54
Special Model	-	4	11	-	-	381
Total	1,476	1,645	2,028	48,089	59,134	68,633

\* Data includes the number of classes in four Special Model schools.

Source: MOE (1990, 1995, 2000, 2005).

## 2.5 Language Issues in Education

Language policies are integral to Malaysian education but raise contentious issues. A key issue in education in Malaysia concerns the role of the national language and the medium of instruction in schools. As a multilingual society, language representation is a critical issue for the Malaysian government and its people. Until recently, the language of instruction was mainly the national language, namely, Malay. To move towards a more representative and inclusive educational policy, an innovative reform measure at the primary level allows for a diversity of languages to be used as the medium of instruction. There are three types of schools using different languages of instruction, namely the National Schools (SK), Chinese National Types (SJKC), and Tamil National Types (SJKT). The policy of allowing different types of vernacular schools was designed to preserve the cultural and linguistic identities of the diverse ethnic groups. Students are free to enrol in any school type based on parental choice.

However, to preserve diversity and overcome potential difficulties when students progress from primary to secondary education, children from the SJKC and SJKT who do not acquire a certain level of competency in the Malay Language in the Primary School Achievement Test (UPSR) have to undergo one year of study in a “Transition Class” before they can proceed to Form 1. The transition class is aimed at preparing students from the SJKC and SJKT schools for a secondary level education in the national language (Malay). This policy illustrates conscious attempts by the Malaysian government and the Ministry of Education to provide equitable educational provision through multilingual educational instruction at the primary level of education. Such a policy can be seen to preserve diversity in two ways. Firstly, some ethnic communities can retain a level of literacy in their own language, and secondly, further education focuses on maintaining diversity within the boundaries of national interest represented through a national language.

Further reforms were implemented related to language policies in order to ensure that multiracial and multilingual cohorts participate in government schools. For example, even though the medium of instruction in secondary school remained Malay, national schools of SK type also offer Chinese and Tamil, known as People’s Own Languages (POL), as important elective subjects. To deal further with the language and integration issues, MOE has created specific policy plans to improve student unity through the Student Integration Plan for Unity (RIMUP) which carries out many local projects. In 2007, the plan received an allocation of RM 25,879,620 from the MOE.

## Section 3

# Quantitative Aspects of Secondary Teachers

At the secondary level of education, Malaysia has a sizeable workforce that numbered 138,583 teachers in 2006. This number increases when taking into account the number of teachers in private educational institutions, who are excluded from this data. The characteristics of the teaching workforce show that important success has been achieved in terms of improving the qualifications of secondary teachers. Of all secondary teachers, 85.4 percent have a degree qualification, 14 percent have a diploma level qualification, and 0.6 percent are either qualified contract teachers or untrained teachers.

Women comprise almost two-thirds (64.8 percent) of the secondary teaching workforce (MOE, 2006a). Over the last three decades, females have participated in greater numbers at all levels of education, in addition to performing well in key public examinations. For many educated women teaching is an attractive option, as the conditions and benefits provide greater opportunity to combine work and family responsibilities. Men, on the other hand, may be attracted to increasing opportunities in other professions that provide higher rates of remuneration, but less flexibility, as they traditionally take on fewer caring responsibilities in the home. The MOE has placed special emphasis on attracting more male teachers into the system. However, public media campaigns encouraging males to go into teaching have not resulted in much success. In 1993, 45.1 percent of secondary teachers were male; however, by 2003 the number had dropped to 36.1 percent. A future challenge for the MOE is to ensure that teaching is an attractive profession for both men and women in the context of an increasingly competitive labour market.

Another factor characterizing secondary teachers in Malaysia is the relatively young average age of teachers in the profession. On average, most teachers are aged between 30 and 40 years (MOE, 2006b). Malaysia has been relatively successful in attracting new graduates to teaching. The larger number of younger teachers suggests a dynamic teaching force which is more receptive to change. This cohort is likely to remain in the system for at least another 10 to 30 years and, in part, compensates for the loss of experienced teachers who are reaching retirement age in the coming years. The stable group of teachers helps pave the way for continuity in teacher reform and improvement.

### 3.1 Demand for Secondary School Teachers

Maintaining an adequate supply of quality teachers and furthering the development of skills and knowledge of those in the profession present a major challenge. The increased demand for qualified teachers in the secondary system parallels the growth in educational enrolments. From 1990 to 2005, the lower and upper secondary enrolment alone (excluding Form 6) had increased by 59 percent, from 1,304,212 to 2,073,685. The significant increase in student enrolment at the secondary level for the 15 years between 1990 and 2005 has resulted in a corresponding increase in the number of classes and thus in the demand for teachers. The increase was about 88.5 percent from 1990 to 2005. This trend is expected to continue steadily, but at lower rates between 2005 and 2010 (MOE, 2006c).

The demand for teachers is mainly determined by the number of students enrolled and the number of classes, since teacher allocations in schools is based on a teacher-class ratio formula. Prior to 2006, the ratio for typical schools was 1.5 teachers per class. The ratio was higher for sports schools (2.0), performing arts schools (2.0), MOE religious schools (1.7), and the religious education stream (KAA) in regular schools due to the special subject requirements in such schools.

In July 2006, in response to the changes in curriculum and pedagogical demands in schools in the technological era, the Cabinet approved an increase of 0.2 in the teacher-class ratio in all MOE primary and secondary schools. This new ratio brought about an increase of 13,400 additional teachers in secondary schools to be implemented from 2007 to 2009. However, the implementation of this policy has been problematic because the extra teachers taken on by certain schools depended heavily on the supply and may not match with the needs of specialized subject areas.

### 3.2 Shortages and Surpluses in Subject Specialization

The lower secondary curriculum focuses on the consolidation of knowledge and skills acquired at the primary level, the acquisition of general knowledge and basic skills, and the development of aptitude and values. Subjects offered consist of several components – the core, compulsory, and elective subjects. Core subjects are mandatory subjects and all students must sit for national examinations in these subjects at the end of Form 3 (lower secondary) and Form 5 (upper secondary). The core subjects are Malay, English, science, mathematics, Islamic religious education/moral education and history. For compulsory subjects, students do not necessarily sit the examination. The compulsory subjects are geography, physical and health education, visual arts, living skills, music, and civics and citizenship education.

The upper secondary curriculum is aimed at further developing and strengthening students' knowledge, skills, and values acquired at the lower secondary level. The core subjects are Malay, English, science, mathematics, Islamic education/moral education, and history. For elective subjects, students may select any one of the subject packages offered. The packages include the pure sciences, additional science, technology, applied arts, Islamic studies, humanities, vocational studies, languages, and information and communication technology. In total, there are over 100 subjects offered at the secondary level.

On the one hand, the provision of a wide variety of subjects at the secondary level is seen to be a wise policy because of the wider choice that students have, which aims to encourage student participation and equity. However, it has implications for teacher demand and supply. It requires a more diversified teacher workforce able to provide quality education in all areas of learning. It requires that new recruitment methods be considered in government policy to attract a diverse group of graduates into teaching. If issues of participation and equity are to be addressed in schools, the characteristics of teachers are critical in meeting the increasingly diverse and complex needs of secondary students.

To date, the country has been highly successful in sustaining the balance between the demand and supply of teachers in government schools. There are, however, surpluses in some subject areas (for example, accounting, commerce, and IT) and shortages in other areas (for example, history, special education, and living skills). While the professionalization of the teaching workforce continues, ensuring subject specialist teaching continues to be an ongoing policy issue. Teacher training programmes allow students to undertake either a double major, major/minor, or major/minor/elective sequence of subjects aimed at preparing them to teach more than one subject. While most teachers are prepared to teach subjects other than their major, the issue of attracting qualified staff in particular disciplines remains critical. As teaching quality is dependent on both content and pedagogical knowledge, the shortage and surplus of teachers in subject areas are the key factors of consideration when projecting teacher numbers based on specialization and professional development needs.

### 3.3 Future Demand for Teachers

Based on the existing enrolment data, the increase in enrolment is expected to be smaller, about 10.3 percent between the years 2005 and 2015, and 0.7 percent between 2010 and 2015, with a total of 2,287,058 projected students for 2015 (MOE, 2006c).

Some plausible explanations for the slower enrolment growth are the declining growth in birth rates and the already high participation rates at the secondary level in MOE schools. Thus, the future demand of teachers, at least up to the year 2015, depends largely on the replacement demand and the new policy introduced, including the improvement in the formula for teacher allocation and the reduction in class sizes, which will allow the creation of new posts and thus the need for more teachers to be trained.

Between 2010 and 2015, the increase in the number of teachers is expected to be about 5.5 percent due to the small increase in enrolment (0.7 percent) and the number of classes (1.9 percent). However, the percentage of increase in the number of teachers is higher compared to the percentage of increase in student enrolment and classes during the period. This is primarily due to the improvement in the formula of teacher allocation.

The issues of supply and demand in some subjects continue to be problematic in rural and remote areas. Demand for secondary school teachers by state is dependent on the enrolment size and the distribution of schools in the states. Schools and classes in rural areas are generally smaller in size compared to urban schools. Thus, bigger states, especially those with more rural schools, require more teachers than smaller states or equivalent sized states with less rural schools.



## Section 4

# Quality of Teachers

The continued improvement of secondary education provision, as reflected in the TIMSS results (see Section 2), depends on the continuous training of high quality teachers who are able to respond to complex educational and social needs. The task of reforming teacher education raises important issues for Malaysia. In the Education Blueprint 2001-2010, one of the four thrusts is improving the quality of both education and teachers. This is underpinned by teachers needing new skill sets to promote student thinking, innovation, ICT skills, and knowledge. Overall, the policy directions aimed at teachers underscore the idea that the quality of the teaching profession is a key component in achieving national aspirations.

There has been significant improvement in the quality of teachers in terms of their academic and professional qualifications. It is targeted that by the year 2010, all teachers in secondary schools will possess at least a bachelor degree qualification in teaching. This goal is most likely to be achieved, since currently the supply of secondary school teachers comes from the Bachelor of Education and Post-graduate Diploma in Education programmes only.

Emphasis on the quality of teachers is further strengthened by the service circulars of the public sector requiring the provision of the in-service training programmes for continuous professional development for all government employees, including teachers. Other strategies adopted include the expansion of degree programmes and the reduction of the diploma programmes in the pre-service teacher education, more rigorous procedures in the selection and appointment of new teachers, and increased budget allocations for in-service training and continuous professional development.

## 4.1 Process for Selecting Pre-Service Teacher Trainees

In the past, the selection of candidates for the pre-service programmes in the Teacher Training Institutes (TTIs) was based on three main criteria: performance grades in the tests taken at the end of secondary education; performance in the written qualifying test, the Malaysian Teachers Selection Test (M-TeST), or the Teachers Personality Inventory (InSaK); and performance in an interview. Candidates who met the high school leaving examinations requirement then sat the InSaK or M-TeST, and successful candidates would be called for an interview. Enrolment in the teacher training programmes in the local public universities, however, is based solely on performance in the high school leaving exam.



Beginning in 2007, common procedures involving all three criteria that were long used by TTIs under the Ministry of Education were integrated with the requirements of the Ministry of Higher Education as a way to standardize teacher selection. This is to ensure that only those who meet the requirements and have the interest and inclination to be teachers are selected for teacher training programmes. As with many other nations, attracting high achieving candidates into teaching is an ongoing issue. As the economy expands and opportunities increase, high achieving candidates are attracted to non-teaching jobs. In a sample study of recent graduates and their work preferences, opportunity for self-development, opportunity for career development, jobs that provide security, working conditions, and quality interpersonal relationships were deemed the five most important factors in career choice (Asaari & Karia, 2002). Thus, attracting keen graduates to build a quality teacher workforce requires policy that makes explicit the self-development and career development opportunities available to new teachers.

## 4.2 Teacher Preparation Programmes

The role of preparing new teachers in government schools is undertaken by TTIs of the MOE and local public universities. Currently, there are 27 TTIs and 12 public universities involved in the preparation of primary and secondary school teachers. These institutions also offer and award the Post-graduate Diploma in Education (DPLI) for graduates from other fields who want to become school teachers.

Beginning in 2007, however, the pre-service training of primary teachers has been entrusted to the TTIs while the pre-service training of secondary teachers is now the sole responsibility of the universities. The turning over of secondary teacher training to universities ensures that graduates have a sound foundation in educational theory and that their training is commensurate with other university graduates.

The quality and relevance of the teacher training programmes have also been given much emphasis in the new system introduced in 2007:

- During pre-service training, each future teacher is trained in two subject areas. A typical programme consists of 80 percent subject specific content, 20 percent education related courses, plus internship (practicum).
- English is a core component in the teacher preparation programme and is compulsory for every trainee.
- Basic and generic skills such as ethnic relations, Islamic and Asian civilizations, language and numerical literacy, are compulsory across all subject specializations.
- Elements of innovation and critical thinking skills are given emphasis and incorporated into these components.

The teacher education programmes offer two types of certification: degree and diploma. The degree programme is a four year full-time course conducted by the universities and the TTIs. At the moment, degree programmes at the TTIs are partially linked with local or overseas universities, while some are fully conducted overseas.

After the 2007 change, the major types of pre-service programmes include:

- Bachelor Degree in Education/Integrated Bachelor Degree with Education (ISMP): This is the main programme (four years) conducted at public universities that supply teachers for secondary schools. There are also bachelor degrees offered by the TTIs that supply teachers for primary schools.
- Post-graduate Diploma (DPLI): This one-year full-time programme (including a required practicum) prepares trainees with a degree in specialized areas to teach in primary or secondary schools. It was first introduced to prepare teachers to cater for the urgent need created by the rapid expansion of secondary education in the past decades. It is a 38-week course aimed at developing trainees' pedagogic skills and knowledge of teaching in primary or secondary schools.
- LPBS (school-based on the job training): The LPBS is a special apprenticeship that involves graduates in specialized areas who are temporarily employed to fill vacant posts in schools and given on the job training by the TTIs in cooperation with the schools. Trainees are employed to teach as permanent certified teachers upon completion of the programme. This programme gives priority to temporary uncertified teachers teaching in their own hometowns, especially in remote and rural areas to overcome the shortage of qualified teachers in these areas.

The MOE has made great strides in creating more flexible pathways for teacher certification and training. To attract a more diverse cohort into the teaching profession, the reliance on the four year Bachelor of Education degree may need reviewing as it locks students into a teaching based programme. At the same time, many students from other disciplines may be excluded from pursuing a teaching qualification, if the preferred method is the Bachelor of Education degree. As secondary education becomes more complex and the demands on teachers more extensive, added training and education prior to appointments prepares teachers for the complexity of the profession. In terms of teacher quality, a sound grasp of content fundamentals delivered in a specialist bachelor degree programme, whether it be a Bachelor of Arts, Science, or Engineering, coupled with an intensive teaching qualification, has the potential to increase teachers' knowledge base and create a more flexible pathway for diverse graduates to consider teaching.

After completion of a training programme, employment in the permanent service is dependent on the candidates' academic achievements and their performance in the interviews conducted by the Education Service Commission. In the past, almost all graduates from the teacher training programmes were employed after graduation. Therefore, teaching continues to be a highly secure job, which is an attractive option for young graduates. However, to maintain higher standards, from 2007 on, only those who are sponsored by MOE and achieve a cumulative GPA greater than, or equal to 2.75 will be employed and placed upon graduation. Those with a GPA below 2.75 undergo another qualifying examination (InSaK), followed by an interview before being posted upon meeting both requirements.

### 4.3 Qualification Upgrading and Professional Development

Malaysia's goal is to have its education system meet world standards. To that end it has established the target that 100 percent of secondary school teachers and 50 percent of primary school teachers will have degrees by the year 2010. To achieve those goals, important qualification upgrading courses are being offered. Special bachelor degree courses are designed for non-degree teachers, while master and doctoral degree courses are targeted at graduates. Besides these two channels, non-degree teachers can also apply for normal bachelor degree programmes conducted by the universities. The MOE also provides scholarships with full-pay leave for teachers to continue their studies at the post-graduate level (Masters and PhD), locally or abroad, in order to improve the knowledge and skills of teachers in areas related to teaching and learning in specific subject areas. These significant commitments reflect Malaysia's serious efforts to enhance the quality of its teaching force to meet world standards.

Continuous Professional Development (CDP) and in-service training (In-SeT) are essential components in maintaining teaching quality. Each year In-SeT is allocated a sizeable portion of the educational recurrent budget and the amount increases each year. The proposed amount for 2008 for example is RM 200 million. Two types of In-SeT are the qualification upgrading courses, and knowledge and skills upgrading short courses, which take less than one year.

The new remuneration system (SSM) circular requires every teacher to attend a minimum of seven days in-service training a year. Knowledge and skills upgrading courses for teachers are conducted through a series of short in-service courses, workshops, and seminars. In-service courses are conducted at the school, district, state, and national levels organized by different education offices and divisions, departments, and institutions in the MOE, such as the TTIs, Curriculum Development Centre (CDC), and also by international organizations such as SEAMEO-RECSAM.

The TTIs conduct short courses related to pedagogy as well as enrichment courses related to the latest developments or initiatives in education to enhance teachers' professional skills and knowledge. Other than the TTIs, several agencies and departments also conduct in-service teacher training programmes with diverse emphases and foci. While the TTIs focus on pedagogy, generic and specific skills; the Institute Aminuddin Baki (IAB) focuses on school leadership and management; the Educational Technology Division (ETD) focuses on ICT development and training; while the State Education Departments (SEDs) and District Education Offices (DEOs) conduct courses on the implementation of policies and programmes at the school level.

In addition, schools are encouraged to conduct in-house staff development programmes covering a wide range of areas based on their needs. Teachers who have attended in-service training programmes at the district, state, or central levels are expected to share the new knowledge and experience with their peers in schools.

The CDC conducts courses related to curricular change. Some of these courses are conducted at the national level, while some are at the state and district levels with the cooperation of the SEDs and DEOs. In-service courses are mandatory for teachers involved in curriculum changes

or new initiatives. Compared to the number of teachers in the teaching workforce, however, attendance in such professional development programmes remains fairly low. While In-Set is essential for the continuous professional development (CDP) of teachers, there are several issues that have far reaching implications for schools. In-SetTs are normally conducted during weekdays, and teachers involved have to leave their classrooms to attend these courses. The school normally provides substitute teachers, but often they are not prepared to teach the required subjects and this may adversely affect student learning.

## 4.4 Initiatives Aimed at Improving Educational Quality

To enhance educational quality, the government has introduced two special initiatives.<sup>1</sup> The first is a special project related to improving the quality of teaching and learning at the secondary level, known as the Smart Schools: Smart Teachers initiative. The Smart School project was launched in July 1997, and by 1999, 87 schools across Malaysia were identified as pilot schools for the project. The pilot project ended in 2003, and by 2006, a broad roll-out of the Smart Schools project was on the MOE agenda (Government of Malaysia, 1997). The Smart School is a learning institution that has been systematically reinvented in terms of learning-teaching practices and school management to prepare children for the information age and knowledge economy. The initiative is an example of what has been termed leapfrogging, that is jumping ahead to new cutting edge technological frontiers. In conjunction with the visionary Multimedia Super Corridor (MSC) project, the MOE introduced the Smart School as a flagship policy aimed at propelling Malaysia towards developed world status by 2020.

This initiative has also highlighted a number of concerns as the shift towards independent and constructive learning and ICT places new demands on teaching skills and knowledge. It implies that new and current teachers become more ICT savvy and develop their knowledge and skills to foster self-directed learning. Since 1996, over 55,000 teachers have received ICT and ICT pedagogy training to be better equipped with more ICT skills and knowledge (Chan, 2002). As in-service training aimed at developing these skills appears to have limited benefits (Ng, et al., 2005), recruiting ICT savvy graduates who are motivated by ongoing learning may need greater attention in government policy. Additionally, teachers in rural areas face further challenges in keeping their ICT skills current. Rural teachers face the added difficulty of isolation, lack of structural support, lack of ongoing professional development, and diminished promotional prospects (Boylan, Nor, and Rahman, 1996). A lack of IT resources continues to plague rural and remote schools and teachers in those areas experience difficulty keeping

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<sup>1</sup> In 2004, the Standards for Quality Education in Malaysian Schools (SQEM) was developed as a benchmark for the educational quality standards of Malaysian schools. SQEM focuses on four dimensions: leadership direction, organizational management, educational programme management, and student accomplishment. The instrument is currently used by the School Inspectorate to assess the performance of schools, teachers, and students on the four dimensions stated above. School principals are expected to use this instrument for self-assessment of school improvement efforts. Many schools have succeeded in using the instrument to improve their schools' performance in related areas. While the instrument appears to be comprehensive and promising, it has not been widely used by school administrators and officials of the District Education Offices (DEOs) and State Education Departments (SEDs) to monitor school progress and performance.

their ICT skills up-to-date. The digital divide between rural and urban areas, the lower income of rural students, the availability of competent staff, and geographical conditions are ongoing issues for educational development using ICT.

The second major initiative introduced to improve quality is ETeMS. Despite its visionary goal to enhance the quality of maths and science teaching, this policy, introduced in 2003, remains highly contentious. The policy aimed at giving Malaysian students greater access to a mathematic and scientific knowledge base that is available only in English. When ETeMS was introduced in all primary and secondary schools in 2003, many teachers and students were not ready for this change. As the language of instruction had been Malay, the policy to change to English in mathematics and science came suddenly, though the implementation was carried out in stages. For students who have been learning science and maths in the national language throughout their earlier grades, this new policy made learning in these subjects even more challenging. Even though the results of the maths and science in English in the public examinations for the first cohort of students were slightly better than the previous years, the public is still not convinced that ETeMS is a rational policy. Some argue that ETeMS deprives students in rural areas, who do not use English outside their classrooms, to excel in maths and science. Thus, in addition to the support services and in-service training provided to teachers, the MOE set up a special task force involving 15 professionals from various divisions to monitor and evaluate the effectiveness of ETeMS implementation and provide feedback and recommendations to the MOE regarding the effectiveness of policy and future directions. The task force is currently carrying out a three-year longitudinal study that integrates monitoring, evaluation, intervention programmes, and bottom-up reporting.

The MOE has stated it “is emphasizing the learning of mathematics and science because the future of the world rests on new breakthroughs and cutting edge technologies” (MOE, 2004, p. 10) and that a good command of English would enable students to access scientific and innovative information most likely published in English so that students are exposed to current theory and learning in mathematics and science. This policy promoting English language as the medium of instruction in mathematics and science has shown that the government has been responsive to the internationalization of education, especially in the important field of science and mathematics teaching and learning.

The policy has, however, attracted much concern in the media and has been raised as a critical issue for the teaching profession. The main issues are not with the policy itself or its rationale but with the manner of implementation. Teachers were not sufficiently prepared, and resources not effective in dealing with the proposed change in the language of instruction for maths and science. Even though the MOE made many efforts to improve teachers’ proficiency and support the implementation of this policy, some teachers are still not ready to teach in English. The main criticisms suggested that in order for the policy to ensure quality education and effective learning in these two disciplines, more resources and language education needs to be allocated to science and mathematics teachers, especially those in rural and remote areas, who may not have access to language classes or intensive language training. Without adequate resources and training, the quality of teaching is compromised. Student learning is not as effective and this may even present another major obstacle for students seeking to continue participation.

## Section 5

# Teacher Compensation

The success of educational reforms in order to meet the innovations of “Vision 2020” is dependent on attracting and retaining a high quality teacher workforce. Policies responding to the need to ensure the attractiveness of the teaching profession require ongoing investment and a sizable portion of educational spending. The relative earnings of teaching compared to other professions, and the likely growth of teacher salaries over time are highly influential in determining retention and attracting outstanding candidates to the field.

### 5.1 Salary, Benefits and Attractiveness of the Profession

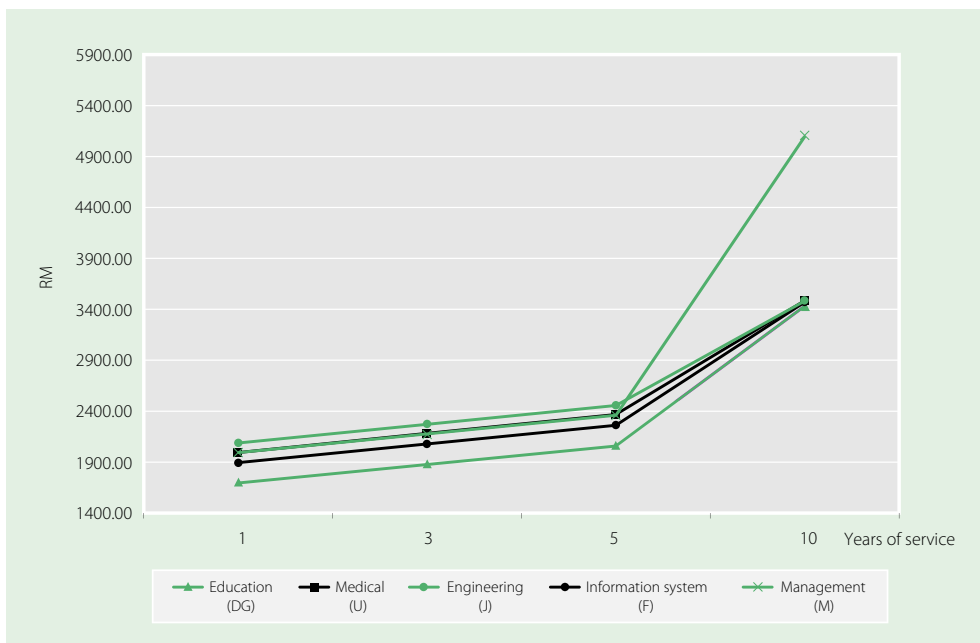
The salary levels for Malaysian secondary teachers range from RM 1,695.85 (equivalent to USD458), for entry level teachers, up to RM 6,325.39 (equivalent to USD1,707) per month. The entry level salary of Malaysian teachers depends on whether the teacher holds a degree or diploma. Teachers with degrees have a significantly higher salary than those holding a diploma. By 2010, it is expected that all secondary school teachers will hold at least a degree level qualification. The entry point for each qualification holder is different. Under the Malaysian Remuneration Scheme (SSM), there are two grades of teachers in the school system, namely DGA29 up to DGA34 for teachers without a degree (teachers with a diploma) and DG41 and above for degree holders.

As teachers gain more experience, they are upgraded to DG44 and DG48. Each salary level has an incremental scale from T1-T8. Teaching performance, added study, experience, and the level of teaching, for example, teaching at Form 6 (the last two years of college preparatory study), contribute to increases in salary. Currently, the starting salary for graduate teachers (excluding allowances) is RM 1,967 for those with a bachelor degree with honors, and RM 1,786 for those with a pass degree. For those who possess a bachelor degree in areas of skills shortage, including architecture, engineering, agriculture or accountancy, plus a diploma in education, the initial salary is a few scales higher. The starting salary for those with an engineering degree for example is RM 2,148, architecture RM 2,329, and accountancy RM 2,510.

Even though the salary of teachers has increased over the years, it is still lower than those of several other public service fields, such as the medical, engineering and general administrative (management) sectors. For example, to reach the same salary level as an engineer with five years experience, a teacher would need the equivalent of ten years experience. In all cases,

teachers need to have many more years of experience to attain salaries comparable to other professions in the public sector, as shown in Figure 1. When the status of teaching remains an issue and attracting higher quality graduates into teaching becomes a necessity in achieving a quality teaching workforce, the salary levels of teachers certainly need reviewing. This may partly explain why males are not entering the teaching profession. As traditional breadwinners, men are more likely to earn more and at a faster rate in other professions.

**Figure 1: Salary Progression for Teachers and Several Other Public Services**



Source: Data from the Public Services Department of Malaysia, personal communication.

Despite the salary gaps between the teaching profession and other sectors, teaching remains an attractive profession to the public. This is evident from both the large number of applicants for teacher education programmes each year and the low attrition rate among teachers. In 2007 alone, for example, the MOHE reported that there were 34,555 (for July and December intakes) eligible high school leavers applying for the 4,590 places reserved in all public universities involved in teacher training. For the Post-graduate Diploma in Education (DPLI), the number of eligible applicants was 20,153, ten times higher than the student intake for that year. The number of teachers resigning or retiring earlier than the mandatory retirement age is almost negligible (MOE, 2006c).

To compensate for the lower salary, teachers in Malaysia enjoy a number of benefits, which are deemed to offset their relatively low salaries. These benefits help provide job security, and attract and retain teachers through ongoing allowances and benefits. There are numerous

benefits available to those working in the public service. Some of these benefits are more general and available to all public servants, including teachers, such as housing allowances, special public service allowances or entertainment allowances, housing loan facilities, car loan facilities, computer loans facilities, and cost of living allowance (COLA), while others are more specific to teachers such as the following:

### ***Special Allowance for Teaching Critical Subjects***

The provision of critical subject allowances is aimed at enticing teachers to teach critical subjects identified by the Central Curriculum Committee (CCC) in the MOE. These subjects include mathematics, science, English, technical subjects, and special education. It is estimated that the incentives scheme costs approximately RM 638 million, a significant portion of the RM 30 billion government budget allocation for education in 2008.<sup>2</sup> For example, in 2007, about 25 percent of all teachers in the country enjoyed this benefit for teaching English, or mathematics or science in English (BISP for ETeMS).

### ***Hardship Allowances and Special Incentives for Teaching in Remote Areas***

To attract teachers to rural and remote areas, incentives in the form of allowances, and housing facilities have been provided. The hardship allowance is provided for teachers serving in rural or remote areas, particularly in Sabah, Sarawak, and some regions in Pahang, Perak, Johor, Kelantan, and Terengganu.

In 2007, the government introduced another incentive called the Special Incentive for Remote Areas for teachers in remote areas that are accessible only by specific forms of transportation, including the island schools. The amount of the allowances varies according to the category of the remoteness, ranging from RM 500 up to RM 1,500.

## **5.2 Appraisal, Recognition and Promotion**

There are several forms of appraisal and recognition of teachers' performance. In 1993, the Government of Malaysia implemented the New Remuneration System, which aimed to formalize new practices, such as continuous objective assessment of employees' actual performance, and requiring high personal commitment to the set objectives. Assessment of teachers' performance is done by school principals annually. Teachers' scores in the annual appraisal are used for consideration in promotions to higher grades or salary scales, opportunities for qualification upgrading courses, and scholarship awards. Teachers with excellent scores in the annual appraisal, normally the top five percent, will be considered

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<sup>2</sup> Part of the RM 30 billion budget will be used to support the implementation of the Educational Development Master Plan (PIPP), which includes the Cluster of Excellent Schools programme, enhancing the quality of the teaching profession, and reducing the gap between urban and rural schools. In 2008, an additional RM 450 million was allocated for the MOE to fund educational programmes and projects under the First Economic Stimulus Package. The educational budget has been further increased to RM 47.7 million in the 2009 budget with an additional RM 1.95 billion for education and training under the Second Stimulus Package (see Government of Malaysia, 2008a and Government of Malaysia, 2009).



for the Excellent Service Award. It is a form of appreciation given by the government to its employees, who have demonstrated competencies beyond the expected norms annually. All teachers are eligible to be considered for the Excellent Service Award, except for those holding the premier posts of Special Grade C and above. Recipients of the award will receive a certificate of Excellent Service and a cash prize of RM1,000. They may also be considered for career advancement opportunities.

Other than the annual appraisal, all teachers, as well as other public servants, regardless of their service scales, have to undertake a competency test, namely, the Competency Level Assessment. It is an instrument used to evaluate teachers' competency in the conduct of their service. Teachers are assessed in terms of their professional knowledge and skills as well as personal values and attitudes under the components of general and specialized competencies. The results are also used as a pre-requisite for promotional considerations to higher scales. For example, a teacher at the upper level of a beginning rank with a monthly salary of RM 2,238 will get a diagonal salary increase of 9.6 percent to RM 2,452 the following year if they pass the Competency Level Assessment with an excellent grade of four.

However, the appraisal process has been criticized because, in addition to the agreed-upon tasks, teachers are also required to take on many other activities not part of the appraisal goals, which influences teacher workloads. Recent studies show that teachers in rural regions are particularly affected by the demanding workloads and lack of incentives and career paths in the teaching profession (Chuan, 2005). For example, Chuan cites Lau's study of secondary teachers in Sarawak reporting that 14.1 percent had intentions of leaving the profession. There needs to be greater recognition that teachers in rural and remote communities do need better access to resources and that their workloads are higher than those of urban teachers, because they do not have equal access to teaching materials, resources, technology, or infrastructure. This suggests that appraisal and promotion processes should reflect the more demanding roles placed on rural and remote teachers.

Promotional avenues have been introduced in order to narrow the salary gap and shorten the career line of teachers through the 'fast track' promotion that comes with higher salary scales. Like employees in other public services, teachers enjoy promotions to higher grades after a few years of service upon success in meeting the requirements, which include the number of years teaching, their performance in school, and their performance in the Competency Level Assessment (PTK). A slower rate of promotion compared with other professions in the public service has often created complaints among teachers and educators through their associations and unions for what they feel are unfair treatment. The introduction of a "fast track" promotion has gone part of the way towards career promotion equity for teachers.

The Super Teacher and Super Principal Schemes provide an alternative "fast track promotion" for excellent teachers and principals. In July 2007, there were 2,024 super teachers and principals. Excellent teachers and principals are encouraged to apply for these promotions after five years of service in the current posts. Under this fast track, an excellent subject teacher can be promoted to the highest grade category after only five years of service. This is special compensation beyond the normal track promotional practices of the profession, so that teachers' pay scales and career paths are more comparable to other professions.

## Section 6

# Conclusions, Discussion, and Policy Implications

Malaysia has made great progress in expanding secondary education during the past two decades. Enrolment ratios at the secondary level have dramatically increased, and important reforms have taken place that aim to modernize education, narrow the gap between urban and rural students and increase the quality provision of education. Despite the progressive development of secondary education and the success in meeting the demands to provide quality teachers, the MOE still faces several major issues and challenges.

### 6.1 Providing Quality Education: Policy Challenges for Secondary Education

Challenges remain related to balancing the need and supply of teachers, but in a different way than in the past. The issue of supply recognizes the need to attract high performing graduates into the profession to ensure quality teaching. This is especially critical in a modern country seeking to achieve the status of a developed nation through the growth of a knowledge-based economy. The supply of teachers is an especially serious issue in rural and remote regions. The government and the MOE are addressing the ongoing struggle of attracting high quality teachers who are willing to teach in such regions for extended periods. Bridging the divide between rural and urban educational achievements rests on the provision and retention of teachers who are able to provide high quality teaching and learning developed through their qualifications, pedagogical training and experience.

More choice in secondary subject offerings necessitates creative ways of matching teachers' majors with the subjects they teach in a manner so that teacher workloads are even and equitable. Teacher training and education has moved towards greater standardization and professional development opportunities. Continuous professional development has been emphasized, and a significant portion of the educational budget has been allocated to in-service training. However, incentives and opportunities for ongoing professional development need further support to ensure greater teacher participation.

Teacher focused policies have created a dynamic and highly qualified teaching workforce with 85.4 percent of secondary teachers holding a bachelor's degree or higher and over 99 percent certified. Furthermore, entrance to teacher education programmes is highly competitive with acceptance rates in the range of 10 to 13 percent. This indicates that Malaysia's top students are interested in pursuing a career in teaching. The profession continues to attract younger,

female graduates and 64.8 percent of secondary school teachers are women, far higher than in most countries. The challenge now is to ensure that more young men consider teaching as a profession, and that both genders are equally represented in the secondary teaching force.

Malaysian students have performed well in the international TIMSS competition, which is a positive reflection on teacher quality. Students score well above the international average in both maths and science. Nationally, however, there are regional disparities in academic achievements and the government has introduced numerous special policies to address such inequalities. To improve the quality of teaching at the secondary education level, the government has also emphasized strengthening both pre-service and in-service teacher education programmes. The quality of the teaching profession is a key component in achieving the nation's visionary aspirations.

As one of the wealthier developing countries, teacher salaries in Malaysia are reasonably good, even though they are below salaries in other fields, such as medicine, engineering, management, and IT. With respect to international comparisons, if adjusted for purchasing power parity (PPP), Malaysian teachers earn more than those in many other developing countries. They even do better than teachers in some Organization for Economic Co-operation and Development (OECD) countries.

The Super Teacher and Super Principal Schemes have been introduced to provide an alternative "fast track promotion" for outstanding teachers and principals, which aim to address the need for greater incentives and compensation for teachers. This policy has also begun to address the unequal promotional practices between the teaching service and other sectors.

## 6.2 Future Challenges for Secondary Education Teachers in Malaysia

Given Malaysia's visionary goal to become a developed nation by the year 2020, it is important that universal quality secondary education be achieved as soon as possible. Currently the enrolment ratio for upper secondary education in MOE schools is 71.7 percent, well below the universal level. The major challenge will be to achieve universal secondary education in remote areas, such as the eastern state of Sabah, and to ensure that members of all ethnic groups have access to quality secondary education. Continuing to improve the quality of its teachers is critical for Malaysia to develop the capacity to have an educational system meeting world standards, transcend the digital divide, "leapfrog" into a new technological era, produce goods and services that are high value added to complement the country's rich natural resources, and become a developed country by the year 2020.

In this context, there is now a need for teachers to not only be passive recipients of policy but to take greater ownership of professional issues and development. This would require a different form of educational governance and a greater decentralization of educational decision making so that teachers, parents, and other educational stakeholders are able to present their perspectives on educational reforms. The new role for teachers to be more responsive to learners' needs, be more flexible in their pedagogy, and take greater leadership in the community necessitates a new form of governance in which teacher issues, including teacher quality, are resolved by the teachers themselves.

# References

- Asaari, M. H. A. H. and Karia, N. 2002. *Entry Level Job Seekers' Perceptions and Aspirations: A Case of UUM Graduating Students*. Proceedings of National Human Resource Management Conference – A New Paradigm in Managing Human Resources: Issues, Strategies, and Challenges, Penang, Malaysia.
- Boylan, C., Nor, S. and Rahman, A. A. 1996. *Rural Education Provision: Insights from Malaysia and Australia*. Paper presented at the Joint Conference of Educational Research Association, Singapore and Australian Association for Research in Education, Singapore Polytechnic. 25-29 November, 1996. <http://www.aare.edu.au/96pap/boylc96097.txt> (Accessed 17 April, 2008)
- Bunnell, T. 2004. *Malaysia, Modernity and the Multimedia Corridor: A Critical Geography of Intelligent Landscapes*. New York, Routledge/Curzon.
- Chan, F. 2002. *ICT in Malaysian Schools: Policies and Strategies*. Seminar/Workshop on the Promotion of ICT in Education to Narrow the Digital Divide, Tokyo, 15-22 October, 2002.
- Chuan, C. L. 2005. A critical review of commitment studies: a call for research in Sarawak school settings. *Jurnal Penyelidikan MPBL*, Vol. 6, pp. 73-92.
- Government of Malaysia. 1997. *The Malaysian Smart Schools: An MSC Flagship Application*.
- Government of Malaysia. 2002. *Education Act 1996*.
- Government of Malaysia. 2006. *Ninth Malaysia Plan 2006-2010*. Putrajaya, Malaysia, Economic Planning Unit, Prime Minister Department.
- Government of Malaysia. 2008a. *Budget Speech*. [http://www1.bharian.com.my/Misc/ajet/Hari/Teks\\_Ucapan2008/200709017529/Article1](http://www1.bharian.com.my/Misc/ajet/Hari/Teks_Ucapan2008/200709017529/Article1) (Accessed 3 January, 2009)
- Government of Malaysia. 2008b. *Malaysia as a Fully Developed Country – One Definition*. <http://www.pmo.gov.my/?menu=page&page=1898> (Accessed 2 March, 2009)
- Government of Malaysia. 2009. *Budget Speech*. [http://www.utusan.com.my/utusan/special.asp?pr=BAJET2009&pub=BAJET209&pg=teks\\_strategikedua.htm](http://www.utusan.com.my/utusan/special.asp?pr=BAJET2009&pub=BAJET209&pg=teks_strategikedua.htm) (Accessed 2 March, 2009.)

Ministry of Education (MOE). 1990. *Malaysian Educational Statistics*. Educational Planning and Research Division.

Ministry of Education (MOE). 1995. *Malaysian Educational Statistics*. Educational Planning and Research Division.

Ministry of Education (MOE). 2000. *Malaysian Educational Statistics*. Educational Planning and Research Division.

Ministry of Education (MOE). 2003. *Education Development Plan 2001-2010*.

Ministry of Education (MOE). 2004. *The Development of Education: National Report of Malaysia*.

Ministry of Education (MOE). 2005. *Malaysian Educational Statistics*. Educational Planning and Research Division.

Ministry of Education (MOE). 2006a. *Trends in the Participation Rates in MOE Schools*. Educational Planning and Research Division. Unpublished document for the preparation of Ninth Malaysia Plan.

Ministry of Education (MOE). 2006b. *Quick Facts: Malaysian Educational Statistics*. Educational Policy Planning & Research Division.

Ministry of Education (MOE). 2006c. *Projection of Enrolment, Classes and Teachers*. Educational Policy Planning & Research Division. Unpublished planning document.

Ministry of Education (MOE). 2007a. *Analysis of Dropout Trends in MOE Schools*. Educational Policy Planning & Research Division.

Ministry of Education (MOE). 2007b. *EFA Project 2007*. Educational Planning and Research Division.

Ng, L.Y., Kamariah, A.B., Samsilah, R., Wong, S.L. and Petri, Z. 2005. Predictors of self-regulated learning in Malaysian smart schools. *International Education Journal*, Vol. 6, No. 3, pp. 343-353.

United Nations Population Division. 2007. The 2007 Revision Population Database. <http://esa.un.org/unup/> (Accessed 21 August, 2008)

World Bank. 2007. *Malaysia and the Knowledge Economy: Building a World-Class Higher Education System*. Washington DC, World Bank.