

THE DEVELOPMENT OF EDUCATION

National Report of Malaysia

by

Ministry of Education

31 July 2004

Contents

Page

INTRODUCTION

1. <i>The education system at the beginning of the twenty-first century: An overview</i>	1-20
1.1 The education system	3
1.2 Achievements in education	16
1.3 Problems and challenges facing the education system	18
2. <i>Quality education for all young people: challenges, trends and priorities</i>	21-44
2.1 Education and gender equality	21
2.2 Education and social inclusion	25
2.3 Education and competencies for life	29
2.4 Quality education and the key role of teachers	35
2.5 Education for sustainable development	43
3. <i>Documentary references used for the preparation of the national report</i>	
3.1 Education in Malaysia – A Journey to Excellence, Ministry of Education Malaysia, 2001	
3.2 Education Development Plan 2001 – 2010, Ministry of Education Malaysia, 2003	
3.3 Malaysian Educational Statistics, Educational Planning and Research Division, Ministry of Education Malaysia, 1991-2003	
3.4 Malaysian Educational Statistics - Quick Facts, Educational Planning and Research Division, Ministry of Education Malaysia, 2000	
3.5 Malaysian Educational Statistics - Quick Facts, Educational Planning and Research Division, Ministry of Education Malaysia, 2003	

- 3.6 Maklumat Pendidikan Swasta 2001 -2002, Department of Private Education, Ministry of Education
- 3.7 Mid-Term Review of the Eight Malaysia Plan 2001-2005, Economic Planning Unit, Prime Minister's Department
- 3.8 Population Projection 1980-2005, Department of Statistics (DOS), Prime Minister's Department
- 3.9 The Malaysian Economy in figures 1999, Economic Planning Unit, Prime Minister's Department
- 3.10 The Malaysian Economy in figures 2004, Economic Planning Unit, Prime Minister's Department
- 3.11 Unpublished documents :
 - a) *Curriculum Development Centre, Ministry of Education*
 - b) *Educational Technology Division, Ministry of Education*
 - c) *Educational Planning and Research Division, Ministry of Education*
 - d) *English Language Training Centre, Ministry of Education*
 - e) *Private Education Department, Ministry of Higher Education*
 - f) *Special Education Department, Ministry of Education*
 - g) *Teacher Education Division, Ministry of Education*
 - h) *Technical Education Department, Ministry of Education*

THE DEVELOPMENT OF EDUCATION IN MALAYSIA

INTRODUCTION

This report as far as possible tried to avoid duplicating information already presented in the 46th International Conference on Education (ICE), held in September 2001, in Geneva. This is in line with the guideline for preparation of country report provided by the International Bureau of Education (IBE), UNESCO.

Part 1 of this report, is an overview and assessment of the development of education (at all levels), particularly the reforms carried out and the changes introduced since the presentation of the last country report at the 46th ICE session. Part 1 will also focus on the organizational structure and administration of the education system which forms the backbone and strength and accountability of the Ministry of Education (MOE). These have to be illustrated since no mention of the organizational structure and administration of the education system were made in previous ICE reports; moreover the function of the MOE no longer encompasses higher education component which now falls within the ambit of the recently established Ministry of Higher Education.

Part 2 of this country report differs entirely from the previous ICE session. This time the focus is primarily on "Quality education for all young people: Challenges, trends and priorities". The focus of the previous 46th session was on "Educational content and learning strategies for the twenty-first century". Part 2 of this country report will try to address the theme of the 47th ICE session as outlined by IBE.

1. THE EDUCATION SYSTEM AT THE BEGINNING OF THE TWENTY-FIRST CENTURY: AN OVERVIEW

Malaysia is highly committed in providing education to all and in meeting the goal of targeting boys and girls alike to complete a full course of primary schooling and of providing secondary education to all youths. At the primary school level this is evident by the high participation rate of 98.49¹ per cent in 2003. With effect of compulsory primary education in 2003, the MOE targets to further increase the participation of children between ages 6+ to 11+ at this level.

¹ Educational Statistics 2003, Educational Planning and Research Division, Ministry of Education Malaysia

Participation rate at the lower secondary level recorded a marginal drop of 1.57 per cent. From 85.97² per cent in 1993 it decreased to 84.40 per cent in 2003. However during the same period the participation rate at upper secondary level recorded an increase from 55.74 per cent to 73.52 per cent. This 17.78 per cent increase marked the highest among all levels of education and is a testimony of the Government's commitment in providing 11 years of universal education to all initiated in 1998.

It has to be noted that the figures provided above only refer to public schools and do not include figures from private educational institutions. Factoring in enrolments at private primary and secondary schools for the same period would increase the participation rates at these levels by 0.7 per cent and 2.9 per cent respectively.

During the same period participation rate at post secondary and college increased by 4.78 per cent while entrance rate into public universities increased from 5.9 per cent to 18.7 per cent. The 12.8 per cent increase at university level shows the seriousness of the Government to increase accessibility into tertiary education institutions in line with efforts to democratize education and to promote lifelong learning. The Government in its effort to increase accessibility into public tertiary education has provided alternative avenues for admission into tertiary education institutions. More places have been provided by building and expanding public tertiary education institutions. Even with these efforts, the public higher education institutions were still unable to absorb the demand for tertiary education and had given cause for about 54,000³ students to pursue tertiary education overseas.

In the mid-90's, the Government in its effort to further expand accessibility into tertiary education and minimize movement of funds out of domestic market⁴ has encouraged private organizations to venture into the education sector. The Government since 1996 has also improved the regulatory framework for the establishment of private universities, and expansion of existing capacity or setting up new campuses. This was vigorously pursued especially during the financial crises of 1997 that swept across East Asia. The depreciation of the local currency has affected students' financial capacity to pursue tertiary education overseas. These efforts and

² Educational Statistics 1993, Educational Planning and Research Division, Ministry of Education Malaysia

³ National Economic Recovery Plan, National Economic Action Council, Economic Planning Unit, 1998

⁴ National Economic Recovery Plan, National Economic Action Council, Economic Planning Unit, 1998

regulatory framework in place has increased the involvement of private organizations in the education sector.

Subsequently enrolment at private education institutions offering courses at post secondary to university levels has increased from 168,489⁵ in 1998 to 294,600⁶ in 2002. The 42.81 per cent increase in enrolment within a five-year period shows the strong support given by the private sector to complement the Government's efforts in increasing participation of youths and adults between ages 17+ to 24+ at tertiary level. Combining enrolments at public and private education institutions at post-secondary to university levels records participation rates of youths between ages 17+ to 24+ years for the same period at 40.39 per cent in 1998 and increased to 50.61 per cent in 2002. Table 1 shows the participation rate at all levels of education for 1993, 1998 and 2003 in public educational institutions.

Table 1. Participation Rates in Public Educational Institutions by Level of Education 1993, 1998 and 2003

Level Of Education	Age Group	Participation Rate (%)		
		1993	1998	2003
Primary (grade 1-6)	6+ - 11+	98.57	95.06	98.49
Lower Secondary (grade 9-10)	12+ - 14+	85.97	85.61	84.40
Upper Secondary (grade 11-12)	15+ - 16+	55.74	66.68	73.52
Post Secondary & College	17+ - 18+	19.27	20.95	24.05
University ⁷	19+ - 24+	5.9	14.5	18.7

Source: Educational Planning and Research Division, Ministry of Education Malaysia: compiled from Malaysian Educational Statistics 1993, 1998, 2003

1.1. The education system

(a) the legal framework of education

Malaysia has instituted six regulatory frameworks to support the provision of education in Malaysia. As mentioned in the 46th ICE country report these regulatory frameworks were formulated and revised in line with the Government's policy of democratization of education. Five of the acts, namely, i) the Private Higher Educational Institutions Act, 1996, ii) the National Council on Higher Education Act,

⁵ Maklumat Pendidikan Swasta 2001, Jabatan Pendidikan Swasta

⁶ Maklumat Pendidikan Swasta 2002, Jabatan Pendidikan Swasta

⁷ Estimates based on entrant rate (single cohort)

1996, iii) the National Accreditation Board Act, 1996, iv) the Universities and University Colleges (Amendment) Act, 1996, and v) the National Higher Education Fund Board Act, 1997, which regulate the provision of higher education remain the same as was reported in the 46th ICE. However, the Education Act 1996 that regulates primary and secondary education has been reviewed for amendment. The change made to the act is detailed out below.

Education Act 1996. The MOE has reviewed the *Education Act 1996* that regulates the provision of preschool, primary and secondary education. The review was to enable the implementation of compulsory education at primary school level. In 2002, the Education Act 1996 was amended and the implementation of compulsory education took effect in 2003. This policy ensures that every child in Malaysia beginning at age six, regardless of sex, social and economic background, and residential locality has the right to primary education. Accordingly, every Malaysian parent must ensure that their child has access to primary education when the child reaches the age of six or on the first day of the current school year when the child would be six years old.

Apart from the Education Act 1996, the provision of primary and secondary education is also guided by the *National Education Philosophy* which states that:

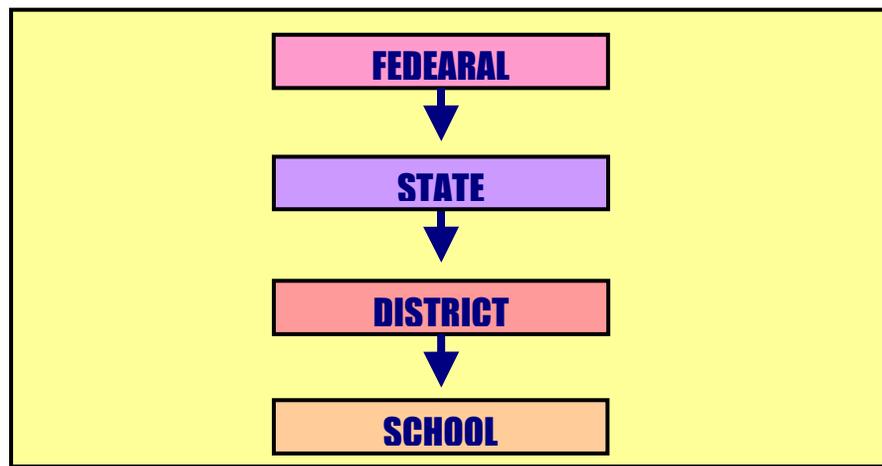
“Education in Malaysia is an on-going effort towards further developing the potential of individuals in a holistic and integrated manner, so as to produce individuals, who are intellectually, spiritually, emotionally and physically balanced and harmonious, based on a firm belief in and devotion to God. Such an effort is designed to produce Malaysian citizens who are knowledgeable and competent, who possess high moral standards, and who are well responsible and capable of achieving high level of personal well-being as well as being able to contribute to the harmony and betterment of the family, the society and the nation at large.”

A well-established framework regulating the education system must be backed by policies that support its implementation. In relation to provision of compulsory education and quality education for all, the MOE has initiated educational support programs to address dropout problems which is prevalent among children from poor families or those from remote areas. Details of the initiatives are reported in section 1.3 of this country report.

(b) the organization, structure and management of the education system

Educational Administration. The organisation of educational administration in Malaysia is centralised and its administrative structure has four distinct hierarchical levels namely, federal, state, district and school. The institutions representing these four levels are the Ministry of Education, the State Education Departments, the District Education Offices and schools. In Sabah and Sarawak, the administrative areas are large, communication is not easily accessible and the sparse population is unevenly distributed. The State Education Department in these two states are assisted by the Residency or Division Education Office in conducting its administrative functions. Chart 1.1.1 illustrates the four levels of education management in Malaysia.

Chart 1.1.1 Management Structure



Educational Administration at the Federal Level. The Minister of Education who is a member of the Cabinet heads the MOE. He is responsible for the implementation of education policies and the administration of the education system. He is assisted by two Deputy Ministers and a Parliamentary Secretary.

The administration of the MOE is through the executive and professional officials, namely, those who belong to the administrative service and the education service. The administrative service is headed by the Secretary-General, and the education service is headed by the Director-General. Both the Secretary-General and Director-General are directly responsible to the Minister. The Secretary-General is primarily responsible for administrative affairs and is assisted by two deputies. The Director-General is responsible for professional matters and is assisted by five deputies.

At the federal level, the MOE is responsible for formulating policy guidelines, translating education policies into plans, programs, projects and activities and coordinating its implementation. Curricula, syllabuses and examinations for all schools are prescribed by the MOE.

Decision-Making at the Federal Level: Policy and Planning Committees.

Decision-making at the MOE is performed through a system of committees. These committees are established to facilitate inter-division and intra-division decision-making. The Education Planning Committee (EPC), which is chaired by the Minister, is the highest decision-making body at the federal level. The Education Planning and Research Division serves as the Secretariat to this committee. However, the ultimate authority on education is Parliament and policy issues that have wider ramifications are referred to the Cabinet before final decisions are made. Chart 1.1.2 illustrates the policy and decision-making process at the MOE.

Chart 1.1.2 Policy and Decision-Making



There are six steering committees with specific terms of reference assigned to formulate policy guidelines, as well as co-ordinate and monitor the implementation of educational policies pertaining to preschool, primary and secondary education. These committees are the Central Curriculum Committee, the Development Committee, the Finance Committee, and the Staff Development and Training Committee. Apart from these committees, there are several other forums through which educational policy, planning and implementation issues are discussed. These are the Conference of Heads of Professional Divisions, the Conference of Education Directors, the Pre-Council for EPC and other Ad-Hoc Committees.

Educational Administration at the State Level. In this centralised system of educational administration, the state education department is in effect the regional arm of the central agency, the MOE. The implementation of educational policies and plans made at the federal level are carried out at the state level through fourteen State Education Departments (SEDs). The SEDs coordinate and monitor the

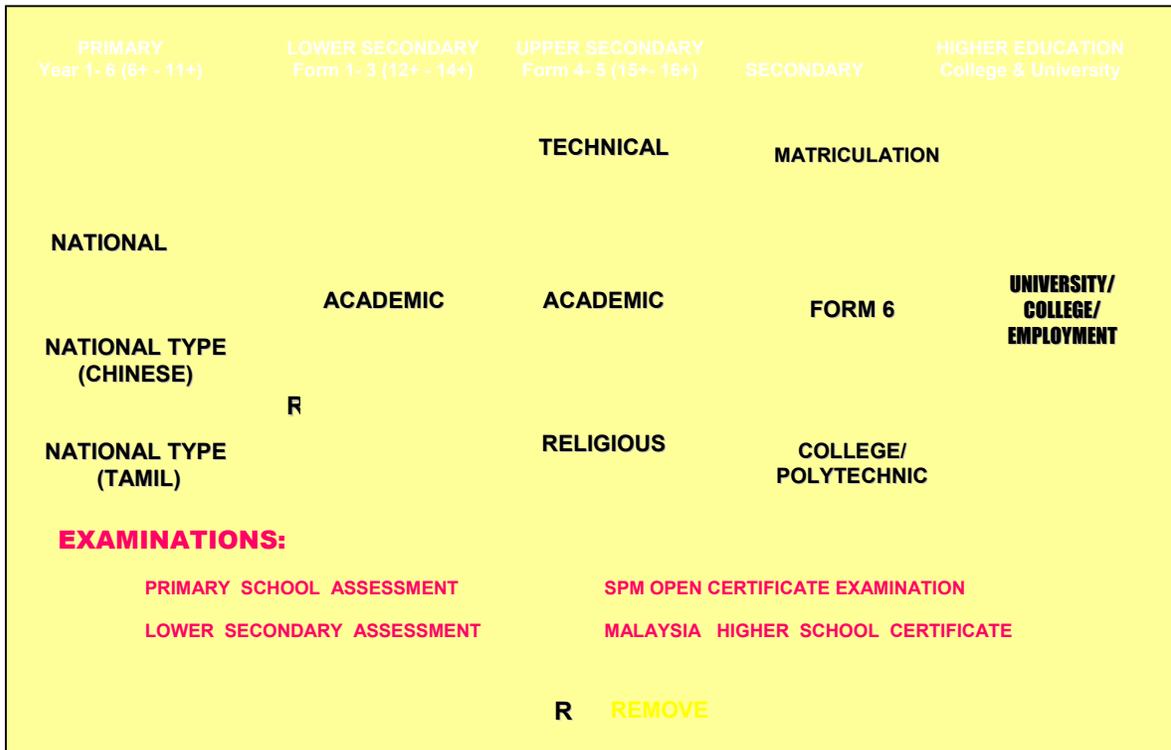
implementation of national education programs, projects and activities, besides providing feedback to the Central Agency for overall planning. The administration of education at the state level is the responsibility of the State Director of Education.

Educational Administration at the District Level. For more effective control and management, District Education Offices were set up in June 1982 in all states except Perlis, Melaka and the Federal Territory. Being strategically located and in direct contact with schools, the District Education Office serves as an effective link between the school and the State Education Department.

Educational Administration at the School Level. The administration of education at the school level is the responsibility of the Principal or Headmaster who is both the administrative and instructional leader in the school. He is assisted by a Senior Assistant and a Head of Student Affairs. Generally, the Senior Assistant assists in administrative aspects of school organisation like proper management of school funds, accounts and resources, planning the timetable and schemes of work for teachers. The Head of Student Affairs assists matters related to student welfare, such as, textbooks loans, discipline, student health and nutrition. Besides this, he attends to complaints and liaises with parents and the community on matters relating to student well-being. For effective coordination of teaching and learning of the various subjects taught in schools, a senior teacher is appointed as the head or key resource teacher for each subject. Schools with double sessions have Afternoon Supervisors who assist school heads in supervising the daily administrative and instructional activities of the schools. All schools have Parent-Teacher Association.

The Education System. Most children between four and six years of age begin their education at preschool set up throughout the country by both government and non-government agencies and the private sector. They enter the primary school at the age of 6+. After completing 6 years at the primary school level they will proceed to lower secondary level for 3 years, followed by 2 years of upper secondary level. Upon completion of upper secondary level, they may proceed to post secondary level consisting of a matriculation program, pre-university (form 6), or college and polytechnics programs. Upon completion of post secondary education, students may proceed to further their education to university; or enter the job market. Chart 1.1.3 illustrates the education and assessment system in Malaysia.

Chart 1.1.3 Education System and Assessment



Public Examination. There are six public examinations that are conducted within the education system in Malaysia, namely, i) UPSR (the Primary School Achievement Test – at the end of grade 6 at primary school level), ii) PMR (the Lower Secondary Evaluation - at the end of grade 9 at lower secondary level), iii) SPM (the Malaysian Certificate of Education, equivalent to GCE O level - at the end of grade 10 at the upper secondary level), iv) STPM (the Malaysia Higher School Certificate Examination, equivalent to GCE A level - at the end of grade 13), and v) STAM (the Higher Malaysian Certificate for Religious Education - at the end of grade 13). New elements in public assessment are presented in section (d) of this report.

(c) curricular policies, educational content and teaching and learning strategies

The courses offered within the school system as reported in the 46th session of the ICE have not had many major changes. Outstanding changes merit mention are the developments made in the teaching and learning of mathematics and science at primary and secondary school levels, the utilization of technology as a tool in teaching and learning, the introduction of Vocational Subject in Academic Schools Program (VSASP), English Language and Foreign Languages teaching and learning, and the introduction of new elements in the school public examinations. All these

changes are outlined in section (d) below. A minor change was also introduced in the curricular. Civics and Citizenship Education at primary and secondary school levels previously taught across the curriculum is now introduced as a subject.

(d) objectives and principal characteristics of current and forthcoming reforms

Reforms in the teaching and learning of mathematics and science in primary and secondary schools. Mathematics and science represent the gateway to a world of creativity, innovations, and discoveries. The MOE is striving to emphasize the learning of mathematics and science because the future of the world rests upon new breakthroughs and cutting-edge technologies. The MOE is enhancing the teaching of mathematics and science to entice more youths to be interested in these areas; especially when schools are considered the initial stage in preparing future mathematicians and scientists. The MOE is also exploring various ideas to stimulate learning in these areas. The Nobel Laureate Centennial Exhibition held in Kuala Lumpur in 2004 to commemorate the 100th anniversary of the Nobel Prize is testimony of Malaysia's commitment in promoting mathematics and science education.

In Malaysia, the delivery of mathematics and science subjects has always been in the National Language (Malay). However, in 2002, English language was made the medium of instruction for both these subjects. The decision to switch to English language as the medium of instruction was based on the rationale that a good command of English would enable students to access the internet, read articles and research papers, and other materials published in English.

Mathematics and science teachers who are less proficient in the English language have access to a proficiency and pedagogical upgrading program. This program incorporates both face to face training and self-access learning through the use of a self-instructional package. In addition, mentors (senior and proficient science and mathematics teachers) are trained to support science and mathematics teachers (buddies) in the same school.

Initial feedback in terms of policy outcomes has been positive. However curricular change of this nature is not without its problems. It requires further investigations. Parents and the wider public resistance towards the switch in medium of instruction for these subjects is subdued by the growing competencies of teachers to teach

these subjects in English. The continuous monitoring and support given by the Government and non-government agencies in the implementation of the program also reduced parents' resistance towards the policy.

Utilization of technology as a tool in teaching and learning. The MOE intends to make ICT-enhanced teaching and learning, distance learning, video conferencing and Internet-links as common features in the Malaysian schools. Schools would have unlimited access to an extremely large source of information. Students would be able to use the internet to exchange or share ideas and are more aware of current events. The utilization of ICT would encourage constructive learning and collaborative classroom discussion making education more meaningful. Currently most of the primary and secondary schools in Malaysia are equipped with computer laboratories and Internet facilities. The development plan for the utilization of technology as a tool in teaching and learning within the next 10 years aims to intensify the development of the ICT infrastructure; expand access to and equity for ICT facilities; expand ICT-based curriculum; and improve on the assessment and evaluation systems using ICT. A more specific reference for the utilization of technology as a tool in teaching and learning is the *Malaysian Smart School Project (SSP)*.

The Malaysian Smart School Project (SSP) is an important flagship in Malaysia's Multimedia Super Corridor ICT Application. The project's framework is embedded in the research on and theories of multiple intelligence and social constructionist. The pedagogical philosophy of SSP is not total "student - centeredness" but an appropriate mix of learning strategies to ensure mastery of basic competencies and promotion of holistic development. Teaching and learning in SSP utilize the browser-based teaching and learning materials for four core subjects, namely; Bahasa Malaysia, English Language, Science and Mathematics. These materials are designed to accommodate different needs and abilities, resulting in fuller realization of other capabilities and allow children to take greater responsibility in managing their own learning. The SSP has also encouraged the development of teaching and learning coursewares for the classroom. The coursewares are designed to be incorporated into the Smart School Integrated System (SSIS). All coursewares are launched through the networked computer system provided to all Smart Schools. Currently, the mathematics and science coursewares are being translated into English to support the MOE's initiative in the teaching of mathematics and science in English.

Vocational Subject in Academic Schools (VSAS). The VSAS is an initiative of the MOE for the upper secondary school students to provide them with greater access and wider array of elective subjects to select from according to their interests and aptitudes. VSAS subjects differ from those academic subjects that traditionally have a strong theoretical emphasis. The curriculum and teaching methodology are tied to the students' interest as they perform meaningful tasks that have direct relevance to real work practices. The reformation of the assessment methods from traditional "paper-and-pencil tests" to a modular-assessment and competency-based system" indicated favourable outcomes. The change was warmly received by the stakeholders. The students' involvement in learning is significantly increased as the contents are more relevant to the world of work.

Aim of VSAS. The general aim of the VSAS is to develop skills in relevant enterprises that would enable students to seek employment, start businesses or pursue higher levels of technical training. The subjects offered as electives are categorized into five sectors, construction, manufacturing, home economics, agro technology and computer applications.

Evaluation Feedback. Whilst the program is being rolled out to schools, requests from other schools to enroll in the VSAS have been overwhelming. The response from stakeholders, namely, the teachers, school principal, students, parents and the community have been very encouraging. From initial student enrolment of 4,400 in 105 schools in 2002, student enrolment by 2004 has increased to about 18,000. It is anticipated that by the year 2005, approximately 470 schools would be offering these subjects (one or more subjects per school). These positive feedbacks are supported by the report of visits to schools by the School Inspectorate. These are further augmented by the recent evaluation study on the VSAS implementation.

MOE's concern regarding inequities of educational achievement has prompted the policy makers to "listen" to the needs at the ground level. In this instance, the MOE is responsive to the needs of the teachers, students and their parents. The underachievers and the less-academically inclined students have voiced their interests in learning vocational subjects. A regular comment by the students is that the VSAS enables them to identify a clear career path for themselves. From the

curriculum perspective, such future orientations are explicated together with ethics and work culture, as well as, communication skills for better customer services.

Initiatives in English Language and Foreign Languages teaching and learning. Various programs have been introduced to support the implementation of the English curriculum at the school level. These are:

- Extensive Reading and Contemporary Literature
- The Structured Early Reading Program
- Teaching Courseware Development Program
- English for Science and Technology
- Native Speaker Teachers' Program

Extensive Reading and Contemporary Literature. The MOE in 2001, introduced English literature as a core component in the English language secondary school curriculum. The main objective of the program is to expose students to English literature and models of good writing. This program aims to enhance and enrich students' knowledge of common expressions in the English language, as well as, to develop in them critical thinking skills. The texts provided under this program comprise poems, short stories and novels. The mode of teaching and learning is designed to enable students to respond to the texts, draw lessons and insights, understand and appreciate other cultures, and relate events and characters to one's own life.

The Structured Early Reading Program. The Structured Early Reading Program is aimed at developing a love for reading in English from an early age. Schools are given 'big books' to attract children to read. Teachers are introduced to use these books through an extensive induction program.

Native Speakers Project. The Native Speakers Project was launched in 2003. Under this project native speakers of English were engaged in rural districts. They were also assigned to low performing residential schools to coordinate English language teaching-learning activities. In addition, students from the United Kingdom in the GAP year (transition to enter universities) were also recruited and deployed in low-performing rural secondary schools as teacher assistants to support the implementation of co-curricular programs in the English language. Initial feedback

has been most encouraging. Data from public examination results at grade 9 and 11 showed higher marks in the English Language.

The Teaching of Foreign Languages. The English language is not the only language taught in schools in Malaysia. Other foreign languages such as Spanish, French, Arabic, Japanese, and German are also offered as electives. Teachers teaching these subjects are trained at local and foreign universities. Currently the MOE, through one of its teacher training colleges also provides proficiency courses in French and Japanese.

Initiatives in Public Examinations. The MOE has instituted several changes to improve assessment within the education system and to make it more accessible to all. Among these initiatives are the introduction of; (i) School-Based Assessment of Oral Skills, (ii) Bilingual Assessment, (iii) Certification of VSAS, (iv) Grade 11 Open Certification Examination, and (v) On-Line Registration for the Grade 11 Examination. Elaborated in the succeeding paragraphs are elements related to these initiatives.

(i) School-Based Assessment of Oral Skills (SBAOS). The School-Based Assessment of Oral Skills is a continuous assessment of students' oral skills in the Malay and English languages. The assessment is offered to students in grade 1 to grade 6 in primary school and in grade 7 to grade 9 in lower secondary schools. The SBAOS entails students to be assessed in or outside the classroom situation. The main objectives of SBAOS are:

- to enable students to communicate competently in a variety of situations,
- to ensure students' oral skills are continuously assessed during teaching and learning in or outside the classroom including during co-curricular activities,
- to enable students to experience communicating in authentic situations, and
- to develop in students the requisite skills and confidence in communication.

The Oral Test of Speaking and Listening Skills (OTSL) is offered to students in grade 10 and grade 11 in upper secondary school. The processes involved in OTSL are similar to SBAOS. However, the OTSL requires students' scores in oral skills in Malay and English languages to be included in computing the final score for Malay and

English language subjects. The OTSL was first administered to students in grade 10 in 2002 and to students in grade 11 in 2003.

ii) Bilingual Assessment. The year 2003 marked the first year that Mathematics and Science subjects were conducted in the Malay and the English languages. The bilingual assessment was offered to students who set for the grade 6, grade 9 and grade 11 public examinations. All assessments for Mathematics, Science, Technical and Technology subjects would also be offered in the Malay and English languages at the grade 11 public examinations beginning 2004. By 2008, all assessment instruments for grade 6, grade 9 and grade 11 public examinations for Mathematics, Science, Technical and Technology subjects would be in English for all national primary and secondary schools.

(iii) The Certification Of VSAS. Certification of VSAS is through a modular assessment. The modular assessment comprises two parts namely, a) competency-based assessment, and b) modular certification.

(a) *The competency-based assessment* is designed to be flexible, individualized and focuses on improving students' performance. It involves the gathering of evidence to judge students' level of competency in the skills related to the subjects of their choice. The assessment also assesses their knowledge in the subject, and their attitudes in performing assigned tasks according to a set of standards.

(b) *Modular certification*. Students enrolled in VSAS are required to complete a set of modules specific to the subject of their choice. They are assessed and awarded modular certificates of competencies based on the number of modules they are able to complete and the level of competencies they mastered in completing the modules. The certificate of competency for VSAS is awarded by the school at the end of the current school year. The students enrolled in VSAS are also required to sit for the grade 11 public examination. Their performance in VSAS would also be reflected in the grade 11 public examination result.

(iv) Sijil Pelajaran Malaysia (SPM) Open Certification Examination. All schools whether academic, technical, vocational, religious or special education offer the Sijil Pelajaran Malaysia (SPM), an Open Certification Examination at the end of two years of upper secondary education. This examination which was implemented for the first time in the 2000, has replaced the former SPM and SPM (Vocational) examinations.

The subjects offered in the open certification conform to the subject grouping, that is, the Core Group and Elective Group in the Integrated Secondary School Curriculum. All six subjects in the Core Group are compulsory and students have to sit for these papers. Subjects in the Elective Group are not mandatory and students have the flexibility to choose subjects based on their interests, abilities and aptitudes. To facilitate implementation of the examination in schools while at the same time catering to individual student aptitudes, the Ministry of Education has designed two specialised packages of subjects to be offered in the examination. The two proposed packages have the Core Group component as a minimum requirement with several alternative combinations for the Elective Group.

Essentially, the SPM Open Certification examination differs from the earlier system in two aspects, namely, flexibility in choice of subjects and in the certification method. Certificates awarded will specify achievement in subjects passed. Unlike the earlier system, there will be no overall aggregate and classification of candidates into grade one to three.

(v) On-Line Registration for the Grade 11 (SPM) Examination. In 2003, the MOE began an on-line registration system for grade 11 public examinations. A total of 420,220 candidates were registered through this system. The system was initiated after a test period of two-and-a-half years. The On-line Test Administration System is a web-enabled application that allows teachers to register students via Internet connections. The registration is then verified by the State Education Department, of the MOE. Subsequently it would be sent to the Malaysian Examinations Syndicate for processing.

1.2. Achievements in education

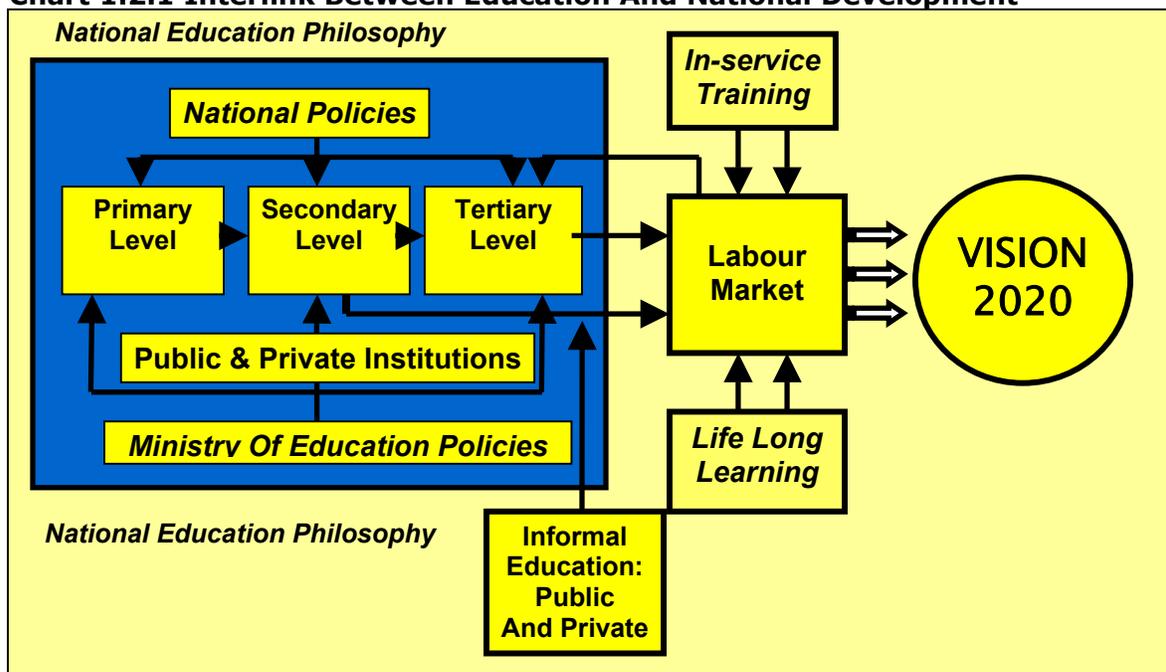
Malaysia's country report on education presented in the 46th ICE 2001 has substantively covered issues on access, equity, quality and relevance of education. The development of education within the three year (2001 – 2004) gap with reference to these issues record marginal progress. The progress made towards issues on access is elaborated in section 1.1, while issues on equity, and quality and relevance is reported in Part 2 of this report. However, with respect to MOE's achievement in providing education for all, especially at primary and secondary levels, the national development plan of the country is presented below so as to share Malaysia's experiences with international communities.

The success of the Malaysian education system in responding to issues of access, equity, and quality and relevance of education is closely linked to the systematic strategies and plans for development put in place in the nation's Outline Perspective Plan (OPP). The OPP implemented through the national five-year development plans from the mid-1960s has always identified the education sector as one of the main mechanism in moving the nation ahead. Accordingly, the national five-year development plans ensure sufficient funds are allocated to the education sector for the development of the nation's human resource. All these plans among others placed the development of human resources, namely, children, youths and adults who are MOE's direct customers, as a major thrust in ensuring a sustainable socio-economic growth. The focus of the plans posts challenges to the MOE in developing the future generations of Malaysian to elevate the nation from a developing to a developed country. The plans with (some changes) have always focused on :

1. Unity.
2. Eradicating poverty irrespective of race.
3. Reducing social and economic inequalities and imbalances.
4. Reducing disparities in economic development between states, and between urban and rural areas.
5. Restructuring the Malaysian society.
6. Economic growth with equity.
7. Promoting human resource development.
8. Making science and technology and integral component of socio-economic planning and development.
9. Protection of the environment and ecology.

The MOE and other education and training institutions in recognizing the link between developing human resources in relation to meeting the aspiration of Vision 2020, are committed to provide an education and training services that would be able to prepare its beneficiaries in the formal public or private institutions, or through informal education to meet the challenges of Vision 2020. Thus, Malaysians are continuously trained and their skills upgraded through In-service training programs at the work places so that they can be productive employees who are better able to contribute to the development of the country. The In-service training at the work place aims to help workers to be multi-skilled, capable of responding to high technology and global-oriented industries. The link between education and human resource development is illustrated in Chart 1.2.1.

Chart 1.2.1 Interlink Between Education And National Development



The priority placed on human resource development by the Government has increased our literacy rate from 85.0 per cent in 1990⁸ to 93.7 per cent in 1998 and to 94.0⁹ per cent in 2002. Similarly in education, the average class size, average school size, teacher student ratio, and number of schools, has improved. Table 1.2.1 shows the improvement from 1998 to 2003.

Table 1.2.1 Average Class and School Size, Teacher Student Ratio and Number of Schools, 1998 and 2003

No.	Indicator	Primary		Secondary	
		1998	2003	1998	2003
1.	Average Class Size	32	31	35	33
2.	Average School Size	405	400	1219	1047
3.	Student Teacher Ratio	19	17	19	16
4.	Number of Schools	7130	7504	1566	1902

Source: Educational Planning and Research Division, Ministry of Education Malaysia: compile from Malaysian Educational Statistics, 1998, 2003

1.3. Problems and challenges facing the education system

⁸ The Malaysian Economy in Figures 1999, EPU, Prime Minister's Department Malaysia, pp 5

⁹ The Malaysian Economy in Figures 2004, EPU, Prime Minister's Department Malaysia, pp 7

Having achieved universal primary education as early as 1990's with no significant gender gap, the challenge to the MOE is to increase participation rate and to provide access to quality education at the lower and upper secondary, post secondary and college, and higher education level. The mission of the MOE "to develop a world class quality education system which would be able to realize the full potential of the individual and fulfill the aspirations of the Malaysian nation" forms the guideline in addressing the challenge.. Accordingly, all programs, projects and activities of the MOE are geared to fulfill this mission with a focus on:

1. Expanding access and equity to low income groups and the underserved regions;
2. Raising quality of education; and
3. Improving efficiency and effectiveness of the delivery system.

Even though our achievements since our independence in 1957 are substantial, there remain challenges confronting the MOE. Some of these challenges include the need to: i) strengthen racial unity through education, ii) expand preschool education, iii) emphasize science and technology, and iv) sustain students' participation in the system.

(i) Integration through education. Education as a means to unite the races remains a major challenge in the country's efforts to achieve Vision 2020. Among the strategies undertaken is the establishment of the Vision School. The concept of the vision school is based on pupils learning together in the same vicinity irrespective of race or religion. Two or three types of primary schools with different medium of instruction and administration are established in the same area and share the same basic facilities. It also creates greater opportunities for pupils of different ethnic groups to mix and interact through various school activities.

(ii) Preschool Education. Expansion of preschool education is another challenge to the MOE. One of the issues at preschool level is the low enrolment rate of preschool among children aged 5+ years. In 2000, 36.0¹⁰ per cent of children within this age group did not have access to preschool. In 2001, the MOE and other relevant ministries had increased access to preschool education. The private sector had also complemented the Government's effort. The MOE further improved education at this level by institutionalising it and making the National Preschool Curriculum

¹⁰ Education Development Plan 2001 – 2010, pp 2-8

compulsory in all preschools beginning 2003. All these efforts have contributed to an increase in the participation rate at this level of education from 64 per cent in 2000 to 88.3¹¹ per cent in 2003.

The aim of the preschool education is to strengthen the acquisition of basic skills such as socialization process and personality development. The basic skills taught at this level are communication, social and other skills (3Rs) in preparation for primary schooling.

(iii) Emphasis on science and technology. For the past years, the government has placed greater emphasis on science and technology in education. The purpose is to give Malaysia the edge in developing into an industrialized nation as envisioned in the Vision 2020. This is another great challenge that faces the MOE. Currently, the low participation rate in the science stream is far from the targeted ratio of 60 per cent in science and technology, compared to 40 per cent in arts. Some of the strategies towards achieving the 60:40 ratio are; i) upgrading vocational and technical schools, ii) building and upgrading science schools, iii) upgrading science lab facilities, iv) introducing science subjects in grade 1 (2003), and v) increasing the number of science teachers.

(iv) Sustaining Students' Participation. Another challenge is to sustain students' participation in the system. The MOE has identified poverty as one of the factors contributing to dropouts among primary and secondary school students. Steps are taken to improve the support system by providing financial aids to excellent students and children from poor family and remote areas. A number of trust funds and financial assistance have been set up to ensure that every child gets the opportunity to quality education. Among the recent initiatives are; a) Poor Students' Trust Fund (PSTF), b) Financial Assistance, and c) Tuition Voucher Scheme.

(a) Poor Students' Trust Fund (PSTF). In line with the implementation of compulsory primary education, the PSTF is established to provide financial assistance to poor students who cannot afford to attend primary schools. In the year 2003, a total amount of RM1.54 million has been distributed to 800 primary schools students nationwide. Each poor student receives a maximum of RM2,200 a year to pay for

¹¹ Malaysian Education Statistics, Educational Planning and Research Division (EPRD), MOE, 2003

their school and examination fees, buying equipment, books, shoes, clothing and others.

(b) Financial Assistance. In 2003, the MOE introduced a financial assistance program for children at risk of dropping out of school because of poverty. Children from underprivileged and vulnerable groups are also included in the program. The financial assistance helps them in preparation for school, such as buying school uniforms and books.

(c) Tuition Voucher Scheme. In 2004, the MOE implemented a *tuition voucher scheme* for children in Year Four, Five and Six at the primary school level. Under this scheme, children from poor families who show poor academic performance are provided with tuition vouchers. The tuition vouchers qualify them to enroll their children into extra-classes in critical subjects such as Mathematics, Science, English and Malay Language. The scheme aims to improve academic achievement of children from low income families. A total amount of RM200 million is allocated for the initial implementation of the scheme.

2. QUALITY EDUCATION FOR ALL YOUNG PEOPLE: CHALLENGES, TRENDS AND PRIORITIES

Malaysia has made tremendous progress in providing 6 years universal primary education to children between ages 6+ - 11+. This is indicated by the high participation rate at this level as mentioned in section 1.1 of this report. However increasing the participation of youths between ages 12+ - 14+ for a 3 year course at lower secondary and youths between ages 15+ - 16+ for a 2 year course at the upper secondary level imposed a great challenge to the MOE. Even though increase in participation rates at lower and upper secondary levels have been recorded over the past years much more needs to be done to bring it up to a much more desired level. The participation rates of 84.40 per cent at lower and 73.52 per cent at upper secondary levels in 2003 need to be further improved. Especially as Malaysia since 1998 is committed to provide 11 years of universal education. The huge increase (17.78 per cent) in participation of youths between ages 15+ - 16+ at the upper secondary level was attributed to the introduction of flexible learning opportunities and life-skills development programs at the beginning of the 21st century. One such intervention is the VSAS as mentioned in section one of this report. The introduction of the VSAS was one of the initiatives systematically implemented to address the issue of dropout and loss of interest towards schooling among students, especially those who are less academically inclined.

2.1. Education and gender equality

Gender-based policy in education and training. In Malaysia, male and female children have equal access to education. There is no discrimination against female students in terms of legislation, policy, mechanisms, structures or allocation of resources. Each child receives education as an individual and not according to gender. They are all taught the same curriculum and sit for the same public examinations. All curriculum, textbooks and teaching materials are carefully evaluated to ensure that the contents do not stereotype females as inferior to males, or females are incapable of receiving higher education, or incapable of holding important posts either in the private or public sectors. This is important in nurturing positive values in children.

Main concerns regarding gender and education. The MOE within its 10 year education development plan (2000 - 2010) has included strategies to increase

participation rate at all levels of education. Provision of education in Malaysia at all levels does not discriminate between genders. Generally, from 1993 to 2003 the composition of males and females enrolled in public primary school is about the same. This is presented in Chart 2.1.1. However, MOE's main concern is over the low participation of male youths at the secondary level. In 1993, 1998 and 2003, a higher enrolment of female to that of male at this level was recorded, indicating as though education at this level favours females over males. This trend places Malaysia in a unique situation as compared to many other developing countries that recorded higher male participation. Chart 2.1.2 shows the enrolment of youths between ages 12+ - 16+ in grades 7 - 11 at secondary school level by gender.

Chart 2.1.1 Enrolment in Public Primary School in 1993 to 2003 by Gender

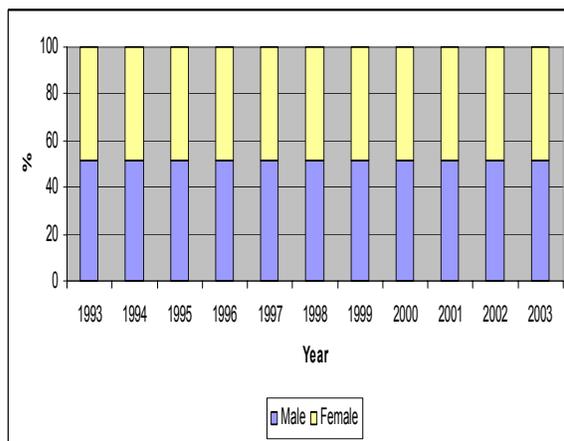
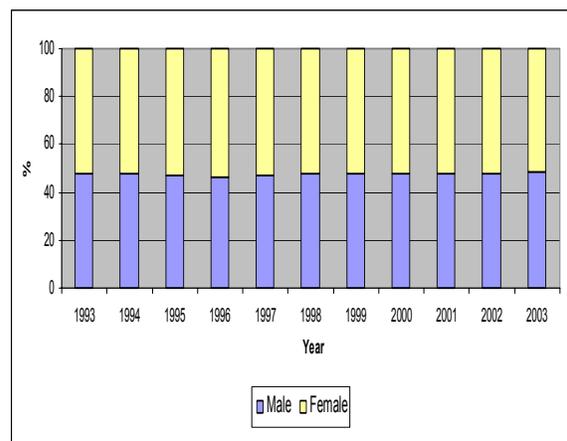


Chart 2.1.2 Enrolment in Public Secondary School in 1993 to 2003 by Gender



Source: Educational Planning and Research Division, Ministry of Education Malaysia: compiled from Malaysian Educational Statistics 1993 - 2003

Educational achievement. Another concern of the MOE with regards to gender and education are issues relating to educational achievement. This concern is not peculiar to Malaysia but is also shared by TIMSS-REPEAT (1999) participating countries and economies. This is evident by the TIMSS-REPEAT (1999) report that even though countries like Singapore, Korea, Japan, Hong Kong and Chinese Taipei are performing exceptionally well, at the other extreme, there are countries that are continuously struggling with issues of educational achievement especially among males. There have been suggestions that more research be conducted to better understand the disengagement of males from the mainstream in their early teens. This has been the concern of the MOE especially when public examination figures show disparity of achievement between genders. Table 2.1.1 shows examination results in public secondary schools in 1993 and 1998 at grades 9 (PMR) and 11 (SPM).

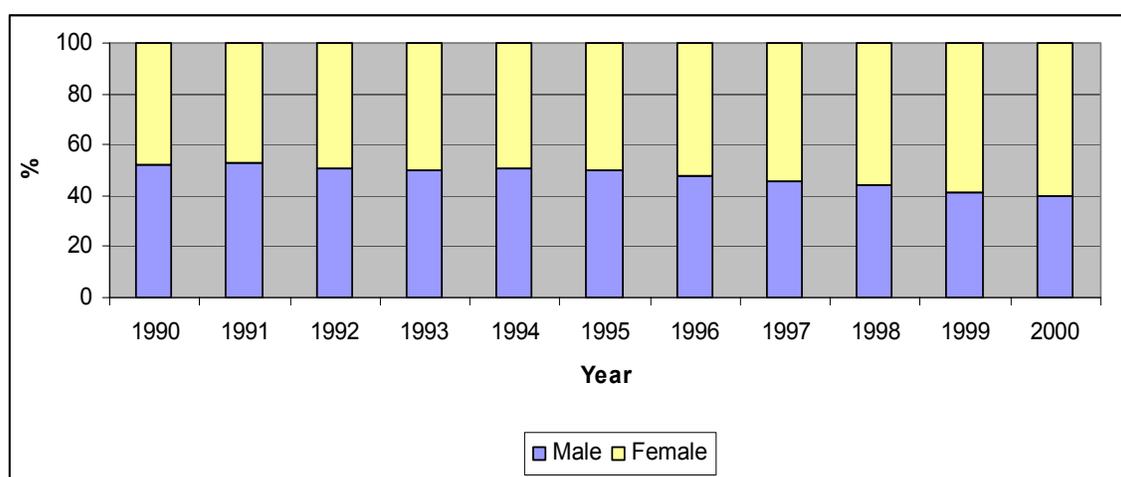
Table 2.1.1 Secondary School Public Examination in 1993 and 1998 by Gender

Level Of Examination/ Subjects/Grades	Percentage of Passes			
	1993		1998	
	Male	Female	Male	Female
Grade 9 (PMR) - Mathematics	87.3	86.4	88.6	92.6
- Science	87.7	90.5	91.3	91.4
- Bahasa Melayu	87.2	92.3	90.5	95.9
Grade 11 (SPM) - Grade 1	18.4	24.0	20.8	29.4
- Grade 2	23.1	27.9	21.7	26.9
- Grade 3	19.0	20.5	19.6	19.1

Source: Examination Syndicate, Ministry of Education Malaysia: Compiled from 1993, 1998 and 2003 examination results.

The reducing enrolment of male youths. The reducing enrolment of male youths at the university level in almost all fields of study is another concern of the Government. Although entrance into public universities as reported in Part 1 of this report has increased from 15.9 per cent in 1993 to 18.7 per cent in 2003, it is however attributed to the increase in the participation of female youths. The declining trend of male youths at the university level is more obvious in the arts and pure sciences as compared to enrolments into the technical fields. Chart 2.1.3 shows the declining enrolment of male youths at the university level from 1990 to 2000. Similarly, Chart 2.1.4 and Chart 2.1.5 Chart illustrate the decline in the arts and social sciences and pure sciences respectively from 1990 to 1999.

Chart 2.1.3 Percentage Enrolment at First Degree Level in 1990 - 2000 by Gender



Source: Educational Planning and Research Division, Ministry of Education Malaysia: compiled from Malaysian Educational Statistics 1990 - 2000

Chart 2.1.4 Percentage Enrolment in Arts and Social Sciences at First Degree Level in 1990 - 1999 by Gender

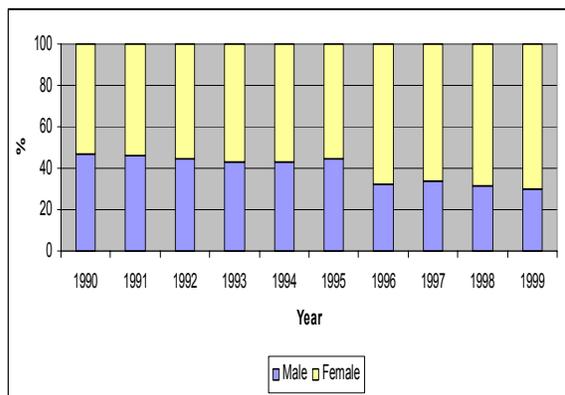
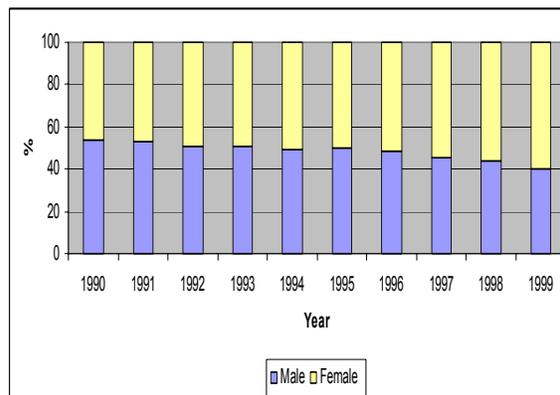


Chart 2.1.5 Percentage Enrolment in Pure Sciences at First Degree Level in 1990 - 1999 by Gender



Source: Educational Planning and Research Division, Ministry of Education Malaysia: compiled from Malaysian Educational Statistics 1990 - 1999

However the enrolment of male youths at this level although is declining, is still much higher than the enrolment of females in the engineering and technical fields. Chart 2.1.6 and Chart 2.1.7 illustrate the trend from 1990 to 1999. As of 2003, even though the entrance of female youths into universities is higher, male youths still dominate the engineering and technical fields.

Chart 2.1.6 Percentage Enrolment in Engineering Field First Degree Level in 1993 - 1999 by Gender

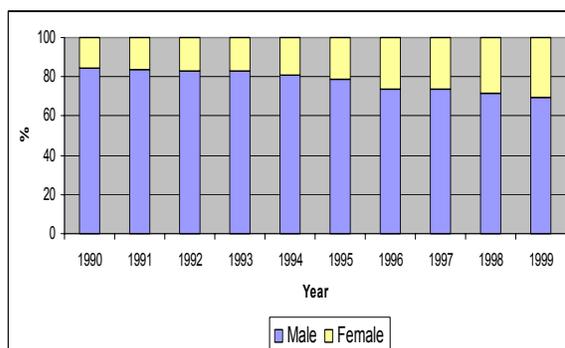
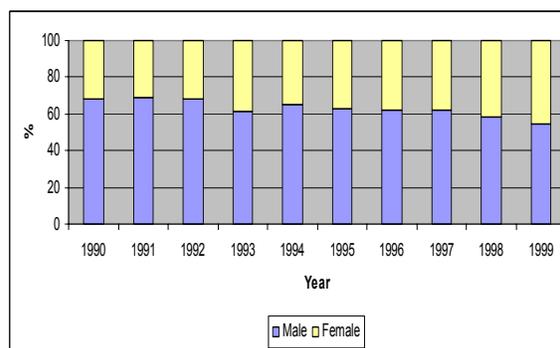


Table 2.1.7 Percentage Enrolment in Architecture and Town Planning at First Degree Level in 1990 - 1999 by Gender



Source: Educational Planning and Research Division, Ministry of Education Malaysia: compiled from Malaysian Educational Statistics 1990 - 1999

Male Teachers in the teaching profession. Another main concern of the MOE today is that it is extremely challenging to attract qualified male candidates into the teaching profession. This has resulted in a small percentage of male teachers in schools. In 2003, for instance, male teachers comprise only 33.3 per cent and 36.1 per cent at primary and secondary school levels respectively. Table 2.1.2 shows a decreasing trend in number of males in the teaching profession.

The continuous drop in the number of male teachers in both primary and secondary schools during the last ten years (1993 - 2003) has over the past years intensified efforts to encourage males into the teaching profession. Public encouragement through the media has been initiated to encourage males to apply for training, but it appears that the effort to recruit more males into the teaching profession would continue to be a challenge to the MOE.

Table 2.1.2 Number of Teachers at Primary and Secondary Schools in 1993, 1998 and 2003 by Gender

Level of Education	Number and Percentage of Teachers					
	Male			Female		
	1993	1998	2003	1993	1998	2003
Primary	55106	57035	58138	78869	96798	116563
	41.1	37.1	33.3	58.9	62.9	66.7
Secondary	37880	40547	46128	46072	62439	81645
	45.1	39.4	36.1	54.9	60.6	63.9

Source: Educational Planning and Research Division, Ministry of Education Malaysia: Malaysian Educational Statistics, 1993, 1998, 2003.

2.2. Education and social inclusion

Groups considered most vulnerable to various forms of social exclusion. In Malaysia the groups that are considered to be most vulnerable to various forms of social exclusion are marginal groups such as special needs children and children of indigenous peoples of the country. The concern in providing education to all is still towards ensuring these groups of children are offered viable options and alternatives to enable them to pursue their interests and fulfil their needs and potential. Some of the initiatives taken by the MOE in addressing issues relating to education of vulnerable groups are elaborated in the subsequent paragraphs.

Children of Indigenous Groups. Minority groups in most countries often rank among the poorest and least educated. The *Orang Asli*, the indigenous population of Malaysia, is confronted by similar predicaments. The government has continuously emphasised the need for integration and assimilation of the *Orang Asli* within the mainstream of society. This can only be achieved by providing them with facilities and services received by the rest of the society. Efforts undertaken have focussed on providing equal opportunities in education and introducing measures to ensure the teaching of their dialects. The MOE faces the arduous task of familiarizing the *Orang Asli* with formal education. At the lower grades, the *Orang Asli* children attend school in their settlement areas and are thereby excluded from the mainstream.

However, they are drawn into the mainstream to receive secondary and higher education.

Measures have been made to ensure that the *Orang Asli* children fully utilise the opportunities afforded them to acquire education at all levels. In areas where schools already exist, the *Orang Asli* is encouraged to attend them. School uniforms, food rations, textbooks and other forms of assistance are continuously supplied as incentives.

Educational facilities such as those provided by the MOE are not available in the thick-jungle areas. Towards encouraging teachers to serve in the remote interiors, the MOE builds teachers' quarters and provides hardship allowances for these teachers. An important agenda is the need for continuous improvement and upgrading of teachers' knowledge and skills in *Orang Asli* schools. In this matter, the Department of Orang Asli liaises with the MOE regarding the training of teachers.

The Department continues to develop strategies to overcome the negative attitude of the *Orang Asli* parents towards their children's education. Related to this is the need to provide adult education to the *Orang Asli* communities in order to foster more literate and optimistic parents. More exposure to the ways and mores of modern society is required. The *Orang Asli* community would have to be made aware of the value of lifelong education and its benefits towards improving their standard of living.

The success of the inclusion of the *Orang Asli* in government schools depends largely on their ability to accommodate and assimilate into the mainstream. Their social and cultural make-up differs starkly from the ordinary Malaysian citizen. While it takes both sides to ensure effective transformation, the government must firstly understand the (in)significance of education in their lives. The MOE has to accept the fact that attendance in schools is dependent on seasonal nature of household chores. The children will be away during the fruit season and "drop in" school whenever they are "free" from chores.

Dropout studies have recommended the implementation of flexible school registration as a strategy to encourage Orang Asli parents to send their children to schools. The present policy requires at least three years registration before actual

school entrance (grade 1). If approved and implemented, the *Orang Asli* parents would not be intimidated by strict rules and regulations pertaining to school attendance, thus creating minute steps towards eliminating barriers to formal education.

Debate of whether to specialise the curriculum or courses of study or accommodating the curriculum to their environmental needs vis-à-vis the decision to give them full immersion of the centralised curriculum is still on going.

Services for people with special needs. Most of the ministries and government departments provide services for people with special needs and those who are physically handicapped. However, there are four main ministries namely; Ministry of Health, Ministry of Higher Education, Ministry of Women, Family and Community Development, and Ministry of Education that provide learning and training facilities and services for children and youths with special needs in Malaysia.

The Ministry of Health identifies and screens children at risk at an early age. The Ministry's medical and paramedical personnel are responsible for the curative and preventive measures of early intervention of children with impairments.

The Ministry of Women, Family and Community Development through its Welfare Department, provides learning and skills training services for children and youths with i) severe physical handicaps, ii) severe and profound mental retardation; and iii) multiple handicaps.

The Ministry of Education provides education facilities and services for children and youths who are 'educable'. The term 'educable' refers to "*children who are able to manage themselves without help*" as defined in the 1997 Education (Special Education) Regulations. The Special Education Department of the MOE is responsible for coordinating all special education programs and the administration of all special education schools available only to students with hearing and visual impairments. Children who are diagnosed with i) Down's Syndrome, ii) mild autistic tendency, iii) attention deficit and hyperactive disorder, iv) minimal mental retardation, and v) specific learning difficulties, are channeled into mainstream government pre-school, primary or secondary schools.

In 1981, the MOE adopted the 'least restrictive environment' policy in providing educational facilities for students with special education needs (SEN). This resulted in the development of Integrated Special Education Programs with the establishment of special education classes (SEC) in mainstream schools. Unlike special education schools, these SEC are part of mainstream schools system. The purpose of developing SEC in mainstream schools was to enhance social integration between children with SEN and their mainstream peers in as many school activities as possible.

In 1999 the MOE introduced SEC in technical/vocational schools. Students with SEN could pursue vocational training at upper secondary education (Secondary 4-5) in technical/vocational secondary schools upon completing their lower secondary education (secondary 1-3). Currently, these educational services are available for students with hearing impairments but a small number of students with visual impairment or learning disabilities has also been admitted to the classes.

Besides establishing SEC in technical/vocational secondary schools, pupils with hearing impairments who are qualified to pursue their studies at tertiary levels, have the opportunity (under the Ministry of Higher Education) to enroll into three polytechnics. The courses currently offered to SEN students are; i) mechanical engineering, ii) civil engineering, iii) fashion and design, iv) graphic designing, and v) hotel and catering.

Malaysia's Concept of Inclusive Education. In Malaysia, inclusion evolved from the practice of integration that entails moving SEN students from segregated settings to mainstream classroom environments. This was initiated with the aim of increasing participation of SEN students in the educational and social life of mainstream school system. The term "inclusion" was widely used in Malaysia since 1994 as a support and subscribing to the "Salamanca Statement" (1994). The 1997 Education (Special Education) Regulations defines "Inclusive Education" (IE) as; ... " (a) *program for pupils with special needs who are able to attend normal classes together with normal pupils.*"

Inclusion in Malaysia subscribed to the concept of placing SEN students into mainstream classes to be educated alongside their peers, either with or without additional support, and within the present school system. This concept of IE might

not be inline with the ideal concept of inclusion based on "*acceptance, belonging, and about providing school settings in which all disadvantaged children can be valued equally and be provided with equal educational opportunities*" (Thomas; 1997), but in the Malaysian context, (with its limitations and constraints) it is practicable.

Inclusion in Malaysia is more functional integration rather than "total inclusion" (acceptance of students with SEN in mainstream classes without conditions). Two types of inclusion are practiced, (i) full inclusion, i.e., SEN students are fully placed in mainstream classes, and (ii) partial inclusion, i.e., students with SEN are placed in mainstream classes for certain subjects only. Prior to inclusion, especially in the early part of their formal education, SEN students are equipped with relevant basics skills and knowledge to enable them to cope with mainstream learning. Only those who are diagnosed capable to cope with mainstream learning would be included fully or partially.

Future plan and expansion of special education programs. Effective teaching and learning for children with SEN is a major concern of the MOE. There are a number of issues and constraints concerning the implementation of special education programs. In order to improve the educational provision for children with SEN, a 10 year development plan has been drawn. The 10 year plan targets to provide a responsive education path for every child and youth with SEN. The expansion of the special education programs is vital in ensuring effective implementation of quality education for children with SEN. The programs could be improved through sharing of expertise, training and support services, in collaboration and smart partnership between the MOE and other government and non-government agencies.

2.3. Education and competencies for life

Malaysia is a young nation. In 2003, slightly more than half of the Malaysian citizens are below 24 years old. Out of a total of 25 million of her citizens for the same year, about 8.3¹² million are under 14 years of age and 4.7¹³ million are between ages 15 to 24. This poses a great challenge to the Government to provide resources to develop the abundance of young human capital. The Government's commitment in providing services to these youths is apparent in the numerous facilities and social services including self-development and skills training programs implemented

¹² The Malaysian Economy in figures 2004, pp 4

¹³ Mid-Term Review of the Eight Malaysia Plan 2001-2005, pp 404

through the MOE and other relevant ministries. The progress and future plans of some of the programs implemented through other ministries apart from the MOE during the 2001 through 2003 period as reported in the Mid-Term Review of the Eighth Malaysia Plan 2001-2005 are elaborated in the subsequent paragraphs. Succeeding immediately are programs implemented through the MOE.

Common basis of human values. To equip youths with positive attitudes, knowledge and skills, greater attention is given to enhancing youth participation in various programs. Youth development programs involving courses in leadership and skills training, entrepreneur development, healthy lifestyle, sports and culture as well as preventive and rehabilitative programs were conducted to promote the active participation of youths in nation building. These courses covered training in management, social interaction and communication techniques, leadership and negotiation skills as well as team building. These efforts contributed towards inculcating positive values, discipline, confidence and good ethics among youths.

Recognising the important role of youths in nation building, the National Service Programs aimed at instilling good values such as patriotism, tolerance, discipline, responsibility and unity among youths are currently being implemented (2004). This program will help deter students from indulging in unhealthy activities. The Government is also conducting a voluntary pre-National Service Program in schools through the *Rakan Muda* and other unity programs including *Kem Padu Anak Malaysia*.

Preventive and rehabilitative programs to combat social ills. To address cases of social problems that were on the increase, social and character building programs aimed at creating a dynamic group of young leaders with spiritual, physical and mental strength were carried out. In 2002, 225,540 youths participated in these programs. To inculcate the culture of volunteerism among youths, the *Khemah Kerja Sukarelawan* Belia and *Konvensyen Kesukarelaan* Belia programs involving 788 youths were conducted throughout the country.

The Government continues to emphasize on preventive and rehabilitative programs to combat social ills among youths such as loafing, substance abuse, indiscipline and crime. Voluntary and religious associations, community organisations such as resident's associations, village development and security committees as well as the

private sector are also encouraged to play their role towards enhancing values development among youths. Programs aimed at strengthening the family institution equipped with good parenting skills are accorded priority. In addition, the inculcation of ethics with positive and high moral values are further emphasised in the training curriculum for youths at the various youth training centres.

Healthy lifestyle among youths. The development of healthy lifestyle among youths continued to be an important agenda with the implementation of various sports, recreational and community-based programs at national, state and district levels. A total of 920,185, youths participated in these programs. The implementation of the *Rakan Muda* program which focused on physical, spiritual, social and intellectual development was continued with the objective of instilling positive values and right attitudes. The planning of these programs and activities were done in consultation with youths to ensure that their expectations and needs were taken into consideration. The construction of 19 *Rakan Muda* centers at the state and district levels facilitated the implementations of these activities. The Government also implemented the *Program Pembangunan Jati Diri* aimed at instilling the spirit of patriotism among youths. This program, which combined the elements of leadership training and recreation, provided opportunities for youths to be involved in healthy activities.

To increase community participation in building a healthy lifestyle among youths, the private sector, voluntary associations and community organisations such as mosque committees as well as village development and security committees are encouraged to implement the *Rakan Muda* healthy lifestyle program. The private sector are also encouraged to participate in the *Rakan Muda* program by providing facilities and infrastructure for recreation and sports. This will widen the opportunity for youths to participate in organised activities as well as achieve the objective of the *Rakan Muda* program.

Equipping youths with relevant skills of the 21st century. Towards this end the Government is emphasizing on equipping youths with the relevant skills towards developing them with the right attitudes, knowledge and skills to ensure that they are able to contribute effectively to nation building. In this regard, leadership and skills training programs are intensified to meet the demands of a knowledge based-economy. Entrepreneurial development programs for youths are enhanced towards

creating a commercial and industrial youth community. The construction of the main campus of the *Institut Keusahawanan Belia Negara* in Ipoh, in the state of Perak and three branch campuses at the northern, southern and eastern region will provide additional training places for youths in entrepreneurial development. This will increase the employability of youths in the related sectors of the economy. To meet the challenges of rapid urbanisation and the advancement of ICT, youth development programs are focusing on moulding a generation of youths who are educated, united, tolerant, competitive, ethical and technologically progressive. Greater emphasis is given to strengthening the family institution and the role of parents in inculcating high moral and spiritual values among youths. Some of the achievements in youth training programs during the Mid-Term Review of the Eighth Malaysia Plan 2002 – 2005 are reported below.

Skills training programs. These programs were implemented to ensure that youths are able to contribute to the economic development of the country. In 2002, a total of 34,100 youths completed skills and semi-skills training programs at various public training institutions. The establishment of new training institutes and expansion of existing facilities offered more opportunities and training places for youths to acquire skills. The completion of eight new national youth skills training institutes, which started their operations in 2003, offered an additional 7,240 training places.

Non-formal training courses and workshops. These workshops in areas such as motor mechanics and fashion designing were also conducted during weekends and for short durations to enable youths to acquire these skills. In 2002, a total of 7,150 youths benefited from various non-formal training courses organised at the state and district levels. The implementation of these training programs enabled youths to increase their marketability in the job market.

Private sector initiatives in youths training programs. To complement Government's effort, the private sector also provided opportunities for youths to acquire new skills. The training offered ranged from basic to advanced skills including production technology as well as information technology. In 2002, 26,100 youths were trained in private skills training institutes.

Entrepreneurial development programs for youths. The program focused on encouraging self-employment as well as promoting entrepreneurship among youths. Under the Youth Economic Trust Fund, soft loans were provided by the Government to encourage youths to set up their own businesses. In 2002, a total of 1,492 youths obtained loans from this fund. Among the projects undertaken were those related to tourism, construction and ICT. Under the vendor and franchise scheme, the Computer Entrepreneur Program was implemented with the objective of establishing small-scale youth entrepreneurs in computer-related businesses. A total of 80 entrepreneurs were created under this program.

Youth development programs by MOE and Ministry of Higher Education.

Apart from the numerous efforts by various ministries, government agencies and private organization mentioned above, the MOE in meeting the challenges of providing youths with flexible learning opportunities and life-skills development has expanded learning facilities and programs at technical, polytechnics and community colleges. Co-curricula activity at all levels of education are more responsive to present social inclinations and demands and are equally receptive to counter negative social trends.

Secondary Technical Schools. At present (2004), there are 89 Secondary Technical Schools (STs) in Malaysia offering three streams: technical education, vocational education, and skills training stream. Students enrolled in the technical stream follow the same core subjects of the upper secondary school curriculum and can choose science and technical subjects as electives. Only students with strong background in mathematics and science are selected to enroll in the technical stream. Students from this stream are encouraged to continue their studies in science and technology-related courses at certificate, diploma and degree levels. The vocational education stream provides courses in pre-employment skills as well as general education. Emphasis is given to general and vocational subjects in order to provide students with good foundation for admission into polytechnics, community colleges and other institutions of higher education. In the skills training stream, however, emphasis is given to practical work to develop competency in trade skills required by related industries. They are also prepared for the National Vocational Training Certificate (NVTC). As of March 2004, enrolments in technical and vocational education streams are 39,663 and 25,910 respectively. There are 1,719 students enrolled in the skills training stream.

Polytechnics. In its efforts to prepare Malaysians to meet the challenges of an industrialised nation, the Government has set up a system of technical education to meet the demand for skilled manpower at the mid-professional level. Polytechnics provide broad-based education and training to upper-secondary school leavers to enable them to acquire the necessary skills as technical assistants and technicians in the various engineering fields or junior and middle-level executives in the commercial and service sectors. Polytechnics offer two-year certificate and three-year diploma programs, both of which require *SPM* (Malaysia Open School Certificate) certificate as entry requirements. At present there are 19 polytechnics throughout the country. The Government plans to establish 36 polytechnics by 2010.

Community Colleges. In 2000, the Government approved the establishment of community colleges in all parliamentary constituencies throughout the country. One of the main aims of setting up these colleges is to provide alternative pathways to students who do not have the opportunity to further their studies in institutions of higher learning or to enhance their technical and vocational skills for employment purposes, particularly in areas related to ICT and K-economy. Hence, community colleges are also excellent avenues for dynamic and quality education and training for youths and at the same time providing opportunities for lifelong learning to the community. The minimal entry qualification for a full time certificate course is a pass in the National Language at the *SPM* level. To date, there are 34 community colleges in operation throughout the country offering a wide range of courses in areas such as technical, services and hospitality. The Government plans to establish 99 community colleges by the year 2010 with target enrolment of 118,300.

Co-Curricular Activities. Co-curricular programs are regarded as an integral part of the school curriculum and provide opportunities for students to interact, develop social skills, encourage team building, camaraderie, tolerance and leadership qualities through play and activities. There are three types of co-curricular activities, namely uniformed bodies, clubs and sports. It is compulsory for students beginning from Year Three in primary school to the upper secondary to participate in at least one uniformed body, a club and in games. In primary schools a minimum of one hour is allocated for these activities whilst in secondary schools the total time allocated varies from approximately one and a half to three hours a week.

2.4. Quality education and the key role of teachers

(a) The influence of the Declaration and Recommendations of the 45th Session of the International Conference on Education

The Status and Roles of Teachers. Education in Malaysia is guided by our National Philosophy of Education which to a great extent is consistent with the hopes and desires expressed in the Declaration and Recommendations of the 45th Session of the International Conference on Education in Geneva, 1996 such as the:

- important contributions that teachers bring to the renewal of education through their ideas, methods and practices;
- key roles teachers play in educational change within the school and classroom at all levels of schooling and in all types of schools
- need for teachers to become aware of their identity and be tolerant, be open to others and to other cultures and that
- teachers should be capable of pursuing their learning throughout life, so enabling them to face the future with confidence

The Ministers at the 45th ICE have recommended the following:

- active participation of teachers and all educational partners in the processes of changing education systems according to the forms of consultation and co-ordination appropriate to the socio-economic, political and cultural contexts of their societies,
- recruitment and retention of motivated and able individuals of both genders in the teaching profession
- reformation of pre-service and in-service education in order that teachers shall serve the new challenges facing education;
- strengthening of professional autonomy and sense of responsibility of teachers;
- improvement of teachers' status and their working conditions, and the
- provision of all forms of support for teachers working in difficult situations, such as those of extreme poverty, armed conflict, social exclusion or in remote areas.

(b) Measures in support of the Declaration and Recommendations of the 45th Session of the International Conference on Education

These recommendations were highlighted by the various measures undertaken by the MOE even as UNESCO was working out the details of its conference on education in 1996. The MOE was already developing several initiatives to meet the aspirations enshrined in our National Philosophy of Education. These initiatives were aimed at ensuring that the best are recruited for the profession, upgrading the status of teachers, upgrading primary education, strengthening teacher education, updating teacher education, enhancing teaching excellence and supporting teachers working in challenging contexts. The following are some of the measures undertaken.

Recruitment of teachers. Stringent measures have been put in place to ensure that only the qualified gets into teacher training. Candidates must have at least a good credit in the option subject and must have at least four other credits in the core subjects like the national language, English, mathematics and science or history. Candidates have to sit for an aptitude test and undergo an interview which incorporates the evaluation of candidates' EQ.

Upgrading the status of teachers. Efforts have also been made to upgrade the status of teachers through raising the qualifications of teachers and the salary scales of teachers. A specialized university for teacher education has been set up and teaching qualifications have been raised from certificate to diploma level. Specialized in-service courses are conducted by all the 28 teacher training institutions in the country. Deserving teachers are also rewarded with scholarships for masters and doctoral programs in local and foreign universities.

Strengthening teacher education. The Cabinet Committee Report on the Implementation of National Education Policy, 1979 stressed the need to enhance teacher education for quality education. To ensure teacher training of high quality, lecturers should possess higher academic and professional qualifications, apart from other personal qualities appropriate for their role as teacher trainers..." The MOE has therefore increased the intake of teacher educators with basic degrees in the relevant disciplines. In 1996, the number of graduate lecturers exceeded that of non-graduates by nearly 700 per cent. Consequently the number of non-graduates has decreased to only 12.5 per cent. Table 2.4.1 gives a breakdown of the staff

qualifications as of 1 March 1996 and of 21 July, 2004. More teacher educators have upgraded themselves from basic degree qualifications to masters level.

**Table 2.4.1 Qualifications of Teacher Trainers
(inclusive those posted to the Teacher Education Division)**

No.	Qualifications / Date	1.3.1996	21.7.2004
1.	Doctorate	11	79
2.	Master degree	532	1674
3.	Basic degree	2273	1349
4.	Non-degree holders	404	124
	Total	3220	3226

Source: Teacher Education Division, Ministry of Education

Non-graduate teacher educators are now maintained in certain specific disciplines like music, living skills, and physical education. The MOE targets to recruit more staff with second degrees as well as those with doctorates in the near future. Existing staff who have basic degrees and who qualify within the age criteria are encouraged to apply for scholarships for master and doctorate programs either locally or overseas. Currently the MOE is working collaboratively with both local and foreign universities to identify programs to upgrade the quality of teacher educators.

Upgrading primary education. In 1996, the MOE upgraded the teaching qualifications of primary school teachers from certificate to diploma level accompanied by a raise in salaries. Beginning 2004, the MOE has embarked on a program aimed at upgrading the quality of primary education through the placement of graduate teachers in primary schools. At the same time, primary school teachers are encouraged to upgrade their teaching qualifications through distance education and in-service courses in local and foreign universities under the MOE's continuous professional development program.

Updating teacher education. The MOE undertakes a number of initiatives to ensure that teachers' ideas, methods and practices are fully disseminated and employed in the improvement of teaching. These include:

- the development and inculcation of a research culture amongst teachers through in-service courses on action research, the provision of leave and grant for teachers and teacher educators to do research
- the involvement of excellent teachers in curriculum design
- The dissemination of good practices through the annual Teacher Education Conference and the Teacher Education Journal
- The annual competition on innovative pedagogical practices amongst student teachers
- The setting up of a research and development unit in every teacher training college in the country and in the Teacher Education Division.

In addition, the MOE has also proposed the concept of teaching schools. Under this concept, a school will be built within the premise of a teacher training college where student teachers can carry out their practical teaching. One teacher training college has already embarked on this concept. Where space is a constraint, colleges may opt to take over a class within an adjacent school. The aim is to ensure that teacher education is in touch with classroom realities, and to share good practices with schools.

The teacher training curriculum also includes ICT as one of the core components. The focus is on the use of ICT in teaching and learning. Teacher training colleges has made it a requirement that student teachers produce and evaluate multimedia teaching materials as part of the course work.

Recognition of teaching excellence. Consistent with the need to give due recognition to good teachers, the MOE has set up awards such as the Excellent Teacher Award for teachers and teacher educators and a similar award for Excellent Head Teachers/Principals in schools and teacher training colleges. The strategy was undertaken in the MOE's effort to maintain excellent teachers in the classroom without having them forgo promotion and higher pay, in line with the principle "moving up and not moving out". Subsequently, some of these teachers may earn salaries higher than that of their principals. Critical subject allowance is also given to teachers teaching English, Science, Mathematics and technical subjects. Teachers teaching in remote areas are given a hardship allowance.

Support for teachers in the outreach. Teachers' quarters are being built on the peripheral of remote areas to provide accommodation and to ensure that teachers working in challenging circumstances maintain a certain standard of living. Teacher Activity Centres and Resource Centres have been built in various districts to support teachers. These centres are well-equipped with books and equipment to enable teachers to develop materials that are context-based. They also form a venue for teacher professional development activities such as courses and seminars. As of 2004, all teacher training colleges have set up programs with disadvantaged schools to improve teaching and learning.

Improving English language proficiency. In May 2002, the Malaysian Cabinet announced the use of English as the medium of instruction for the teaching of science and mathematics to enable future generations of Malaysians to keep up with developments in information communications technology (ICT). More than 50,000 science and mathematics teachers have gone through curriculum induction training and language proficiency training. A staggered implementation strategy was used to implement the policy change. The first year of implementation in 2003 involved only students in Year One, Secondary Form One and Secondary Lower 6. The teachers involved were all supplied with laptops, dictionaries, grammar books, teaching courseware and learning courseware. They were also given a financial incentive to motivate them to use English in their teaching. These teachers were required to attend a two-phase language proficiency course, a curriculum induction course and a course inducting them to the teaching courseware supplied by the ministry. Support is also given in the form of a peer who is proficient in English. This peer will be the critical friend to the science and mathematics teachers who needs language support. All of the 28 teacher training institutions run English language courses on a continuous basis for teachers in service and for the private sector. The modules are designed by a specialized teacher education centre, the English Language Teaching Centre.

Publicizing the achievements of teachers. All the national newspapers in the country have weekly columns focusing on school or educational institutions' achievement and initiatives. This helps to promote excellence in education but more importantly we see this as an essential element to support teachers and upgrade their professional esteem and self-worth. The MOE gives incentives to teachers who

write books, particularly fiction to enable teachers develop not only their writing skills, but local literature and enhance their sense of professionalism.

(c) Reforms in pre-service and in-service teacher education

Pre-service and in-service teacher education. Teacher Training Colleges (TTCs) and the public universities are the main provider of teachers in Malaysia. The TTCs mainly produces diploma graduates, however a small percentage of degree graduates are also produced through twinning programs with local and overseas institutions. The twinning programs are jointly developed and delivered by both institutions. However, the degree is awarded by the partner institutions.

Teacher Education Curriculum. To ensure effective delivery of the school curriculum, the MOE is committed to provide high quality and qualified teaching workforce at all levels of education. Accordingly, pre-service and in-service teacher education curriculum are evaluated and reviewed by the MOE to ensure that teacher training programs stay relevant and is abreast with the current development and changes in education. Some of the innovations and changes are elaborated below.

Cooperative and collaborative learning environment. One of the innovations made to the delivery system is the introduction of *integration of pedagogical and content knowledge with a focus on cooperative and collaborative learning environment* in the Post Graduate Diploma in Teaching (PGDT) courses.

School-based Experience. A new component in the curriculum of the PGDT for primary school is the School-based Experience (SBE). The SBE involves assigning trainees with tasks that would enable them to apply theoretical knowledge to actual school setting. This enables them to construct new knowledge and understanding of classroom practices that would contribute to a meaningful learning.

Emotional Intelligence Competencies (EIC). Aspects of emotional factor or EIC of the teacher trainees are now given emphasis in teacher education programs. These aspects are integrated across the curriculum.

Information Communication Technology (ICT). The use of leading age technology is emphasized in the teaching and learning processes. Teacher education curriculum

includes ICT literacy for trainees in all disciplines. Courses on integration of ICT in teaching and learning for in- service teachers are also conducted.

Teaching School. Teaching schools are established to showcase excellence in all aspects of education; school and classroom management, innovation in teaching and effective learning. These teaching schools would provide clinical experience for teacher trainees to facilitate classroom teaching and learning. Currently there are two models being implemented:

- A registered primary school is constructed in the premise of a TTC and being managed fully by the TTC. One such school is the **Sekolah Kebangsaan Maktab Perguruan Kuala Terengganu** constructed on the premise of a TTC in Terengganu which currently has two Year 1 classes each with 25 pupils. Trainees from the TTC undertake their practical teaching in the school.
- TTC takes charge of the teaching and learning of a class from a school nearby. Staff from the TTCs teaches collaboratively with the classroom teachers in core subjects such as, Malay language, English language, Mathematics and Science.

Character Building Program. This is an outdoor program that includes various physical, mental and spiritual activities. This program provides a comprehensive and integrated learning process to produce balanced individuals who are resilient and competitive and have a high-level of self-esteem. The activities include camping, group dynamics, lectures and workshops, canoeing, trekking, snorkeling and reflection.

Continuous Professional Development. The MOE has always placed great emphasis on teacher professional development and this is reflected in the MOE's 1994 policy that requires all teachers to attend at least one in-service training (INSET) program per year. The in-service training programs provide platforms for teachers to upgrade their knowledge and pedagogical skills. The programs provided are either short or long-term courses conducted locally or abroad. These courses are designed to meet the requirement of various subjects, learning competencies and curriculum specification. Different modes of delivery such as distance learning, on-site and in-site are offered through these courses. Most of the INSET are conducted

at TTCs and Teacher Activity Centres (TACs). Some of the INSET offered to teachers are:

- 1 Year Specialist Course.
- Special First Degree Program- In-service.
- 14 Week Professional Course.
- Malaysian Trainer Development Program (MTDP).
- In-House teacher training College courses.
- Short Courses conducted by State Education Departments.
- Short Courses conducted by MOE Divisions.
- Research Program by TTCs.
- Masters Degree Program.
- Others (ICT, First Steps, English For Science & Technology, Conversion Science, English & Mathematics).

Model of Training. In order to maximise and optimise resources, the cascade model of training is adopted. Through this approach, teachers are trained according to the *Training of Trainers* (TOT) concept. Consequently, they would be the master trainers and are required to train other teachers at the state and district levels. This cascade model is not only cost-effective but is also practical in producing a multiplier effect. It is based on the assumption that knowledge can be transmitted and disseminated from the centre to the periphery or from the master trainers to the trainers.

Scholarships. To further enhance professionalism of teachers, provision of scholarships to facilitate studies at Masters' and Doctoral levels continues to be implemented. Under this program scholars are provided with tuition fees, living expenses, thesis and book allowances as well as full pay leave.

Research and Development. Educational research and development has contributed a great deal to the advancement of knowledge in higher institutions in Malaysia. Of late, action research has become a major practice among teachers and educators in Malaysia. Through a systematic and regulated action research program undertaken by the MOE, teachers would be able to integrate their research findings into their daily teaching routine, and making teaching and learning meaningful and holistic. This, in turn, can lead to a greater job satisfaction, improvement of students' learning and teachers' contributions to the advancement of knowledge in education.

Challenges of globalization. To meet the challenges of globalization, and new trends in teaching and learning, teacher education programs need to be carefully re-conceptualized and redefined. Benchmarking of the best education institutes worldwide is done so that their best practices can be emulated.

2.5. Education for sustainable development

Education for sustainable development, in particular the concept and components of environmental education (EE) are implemented across the curriculum at all levels of schooling. In 1998, the MOE developed the EE Curriculum Guidelines that included the specific objectives, components and implementation strategies of EE at preschool, primary, and secondary levels. Samples of activities that integrate content, knowledge and environmental education concept in various subjects are also provided along with support materials including Teacher Guidebook, Marine Education Kit, MOBIUS Curriculum, and Green School book.

The teaching of EE in schools is closely related to the nation's aimed of developing a society that is sensitive and possess appropriate knowledge, skills, and values towards environmental issues and are able to contribute to the solutions of environmental problems. The elements of EE are integrated and explicitly taught in subjects such as Moral Education, Geography, Languages, Islamic Religious Education and would soon be introduced in Civics & Citizenship Education in 2005.

Environmental Education in Schools. In the teaching and learning of subjects like Geography, the element of sustainable development is discussed under the themes such as resources, climate, natural vegetation, transportation and communication. In Moral Education value related to the environment taught are, i) Love and care for the environment, ii) Harmony between man and his environment, iii) Sustainability of the environment, and iv) Sensitivity to the environment issues.

In the language areas such as Bahasa Malaysia and English classes, students are given topics on environmental awareness such as conservation and preservation of wild life, pollution, conservation of the environment and management of resources for mutual benefit.

Non-Formal Environmental Education. In schools the importance of sustainable development, with reference to EE is extended to co-curricular activities and programs/projects such as setting up of Nature Club. Environmental awareness is

also instilled in students through school activities such as the 3K projects. Among the 3K projects are national competitions to promote school safety, cleanliness, and beautification of the environment; environmental quiz competition; National Leisure Environmental Activities; Renewable Energy & Energy Efficiency project; talks/workshops; and site visits. All these activities are the concerted efforts of MOE with various ministries and departments such as the Ministry of Science, Technology & Environment, Ministry of Energy, Communications & Multimedia, and the Department of Environment, the Forestry Faculty of UPM, and private companies.