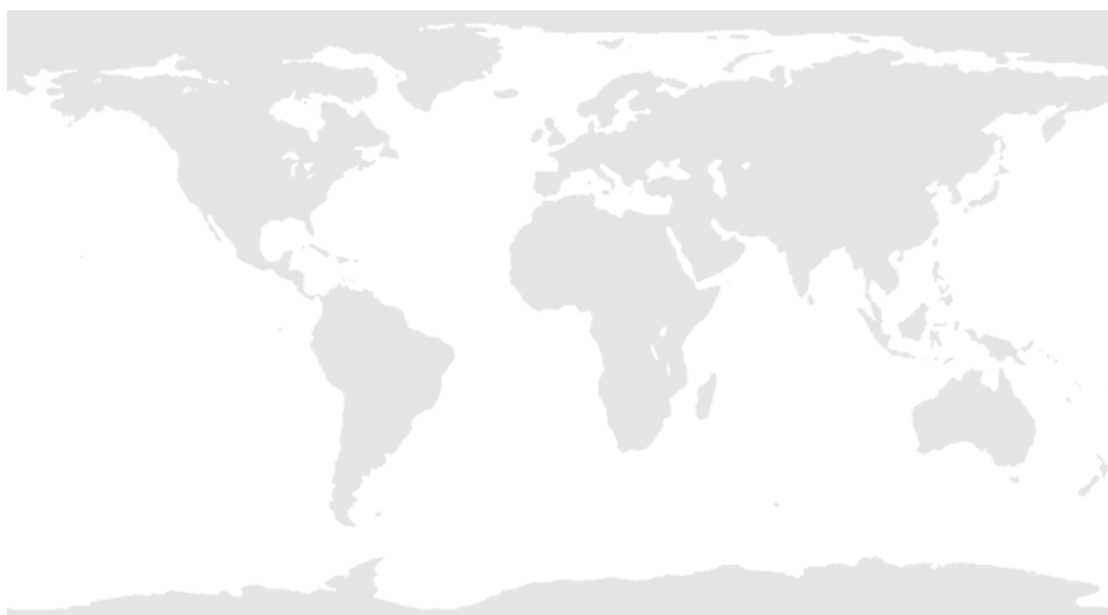




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Principles and general objectives of education

Malaysia's national ideology *Rukunegara* (1969) has provided the direction for all political, economic, social and cultural policies including those concerning education. The aspirations of *Rukunegara* are national unity, democracy, justice, equity, liberty, diversity and progress. The guiding principles are belief in God, loyalty to King and Country, upholding the constitution, rule of law, and good behavior and morality.

The National Philosophy of Education, formulated in 1988, states that "education in Malaysia is an ongoing effort to further develop 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 responsible and capable of achieving a high level of personal well-being as well as being able to contribute to the betterment of the family, the society and the nation at large." (See also the Education Act 1996 and subsequent amendments).

The underlying principles and goals of the NEP are translated into the school curriculum, which encourages the development of balanced, well-rounded, trained and skilled individuals who cherish the national aspiration for unity. More specifically, educational activities and programmes intend to achieve the following objectives:

- provide pupils with the essential intellectual, affective and psychomotor skills in a holistic and integrated manner to produce individuals who are intellectually, physically, emotionally and spiritually balanced and functionally literate;
- inculcate and nurture national consciousness through fostering common ideas, values, aspirations and loyalties in order to mould national unity and national identity in a multiethnic society;
- produce manpower with the requisite skills for economic and national development;
- inculcate in pupils desired moral values and to promote personality and aesthetic development as well as the sense of being responsible and disciplined, and progressively enabling them to contribute effectively towards nation-building.

There is no discrimination against any citizen in terms of access to education and financial support for the maintenance of pupils and students in any educational institution. Equality and rights in education are fundamental liberties enshrined in the Federal Constitution.

Laws and other basic regulations concerning education

The basis of the education system is formulated in several policy documents. In particular, the recommendations contained in two Reports (the Razak Report of 1956 and the Rahman Talib Report of 1960) became the integral component of the Education Act of 1961 and then of the Education Act of 1996. The **Education Act (1996)**, which repealed the Education Act (1961), covers all educational levels although the focus is on pre-primary, primary, secondary and post-secondary education. The Act has included preschool education as part of the national school system. The Act also stipulates the use of the national language (*Bahasa Melayu*) as a medium of instruction in all educational institutions in the national education system except national-type schools or any other educational institutions exempted by the Ministry. The Act requires all schools to use a national curriculum and to prepare pupils for common public examinations, unless or otherwise exempted.

The **1984 Child Care Act (308 Act)** refers to all early childhood care and education (ECCE) programmes for children under 4 years of age. Besides its aim of providing care and education to children, the Act included issues on registration; monitoring and inspection of the childcare centres; and protecting the interests and safety of the children against any form of abuse or neglect. The last revision of the Act is the **Childcare Centres (Amendment) Act 2007**. The amended Act aims to regulate and stimulate the growth of the childcare industry (childcare centres are mainly in the private sector). The validity period for a registered childcare centre has been extended from 12 months to 60 months, this mean that the childcare centre providers do not need to renew their licence yearly.

The **Universities and University Colleges Act (1971)** provides for the establishment and regulation of public universities. The **Universities and University Colleges Act (Amendment) 1996** provides for greater autonomy to public universities in management and finances and in determining programmes for educational excellence.

The **Private Higher Education Institutions Act (1996)** for the first time makes provisions for the establishment of private universities and university colleges, branch campuses of foreign universities as well as the upgrading of existing private colleges to universities.

The establishment of a National Council on Higher Education is provided for in the **National Council on Higher Education Act (1996)**. This Council is responsible for determining the policy in the field of higher education and coordinating its development.

The **National Accreditation Board Act (1996)** provides for the setting up a National Accreditation Board to ensure that high academic standards and quality are maintained in both public and private higher education institutions.

The **National Higher Education Fund Board Act (1997)** provides for the establishment of a fund board for the purpose of providing financial assistance



(educational loans) for students studying in higher education institutions in the country.

The **Child Act 2001 (Act 611)** provides that every child is entitled to protection and assistance in all circumstances without regard to distinction of any kind, such as race, colour, sex, language, religion, social origin or physical, mental or emotional disabilities or any status.

The **National Skills Development Act 2006 (Act 652)** provides for the establishment of the National Skills Development Council as well as the National Occupational Skills Standards as a measure of proficiency leading to the award of skills qualifications (certificate, diploma, advanced diploma) and to be used in the development of the national curriculum for skills training programmes.

According to Section 29A(1) of the **Education Amendment Act 2002 (Act A1152)**, effective 1 January 2003, the government has made primary education compulsory for all children aged 6. Parents who fail to enrol their children would be liable to a maximum jail term of six months or a 5,000 *ringgit* fine or both. Secondary education is not yet compulsory. Education is provided free to all children.

Administration and management of the education system

The Ministry of Education is organized into four distinct levels: federal, state, district and school. The education districts do not correspond to the administrative districts because they are based on educational rather than administrative needs.

At the federal level, the **Ministry of Education (MOE)** translates the National Education Policy into educational plans, programmes and projects in accordance with national aspirations and objectives. It also sets guidelines for the implementation and management of the educational programmes.

The **School Inspectorate** is a MOE division responsible for monitoring the implementation of curriculum and ensuring quality of teaching and learning. The School Inspectorate conducts regular, detailed, meticulous and professional inspection of schools and education institutions in order to ensure quality delivery and high standard of education.

The Curriculum Development Centre (CDC) was established in 1973 as a unit of the Education Development Unit in the Planning Division of the Education Policy Research, MOE. In June 2008, following the restructuring of MOE the CDC has become the Curriculum Development Division under the Policy and Educational Development Sector, one of the three sectors of MOE. This Sector, headed by the Deputy Director General of Education, in addition to the Curriculum Development Division includes: the Educational Planning and Research Division; the Examination Syndicate Malaysia; the Education Technology Division; the Textbooks Division; and the National Book Council. The functions of the **Curriculum Development Division** are to: formulate and develop the national education curriculum towards the internationalization of the curriculum; plan, formulate and execute the dissemination of the curriculum; plan and oversee the implementation of the curriculum; prepare



teaching and learning modules, as well as teachers' guide books based on the national education curriculum at the pre-determined levels; plan and execute research and development pertaining the curriculum; provide advice and expertise pertaining the implementation of the curriculum and the production of teaching and learning materials by the various divisions of the Ministry of Education; coordinate and execute high-level meetings, approve policies, and implement the curriculum at ministry, state and district levels.

The decision-making process at the national level is performed through a system of committees. The **Educational Planning Committee** (EPC) is the highest decision-making body in the Ministry of Education and is concerned with the formulation, co-ordination and implementation of general policy guidelines. There are also six Steering Committees with specific terms of reference, including the Central Curriculum Committee, the Development Committee, the Finance Committee, and the Staff Development and Training Committee.

The EPC is chaired by the Minister of Education and the secretariat to this Committee is the **Educational Planning and Research Division** (EPRD). As the main planning agency of the Ministry of Education, the EPRD is responsible for educational planning, research, evaluation, policy analysis and co-ordination in matters relating to educational policy and its implementation.

The **Ministry of Higher Education** has been established in March 2004 with the following core thrusts: to set up a strategic and systematic plan for higher education; to reinforce the management of higher education in the country; to increase the capacity, access, and participation levels in higher education; to raise the quality of higher education in the country comparable to international standards; and to internationalize higher education in the country. The **Malaysian Qualifications Agency**, under the Ministry of Higher Education, administers the Malaysian Qualifications Framework (MQF or *Kerangka Kelayakan Malaysia*–KKM), designed to be a unified system of qualifications offered on a national basis by all educational and training institutions which include colleges, universities, vocational institutions, professional organizations and other higher educational institutions in both the public and private sector as well as workplace training and lifelong learning experiences.

The **Ministry of Women, Family and Community Development** was given the trust and responsibility of community development and welfare in April 2004. The Ministry oversees four agencies, e.g. the Department for Women Development, the Social Welfare Department of Malaysia, the National Population and Family Development Board, and the Social Institute of Malaysia. The Social Welfare Department acts as the final agency for the issue of the certificate of registration of childcare centres and care centres; before a certificate can be issued, approval is needed from other technical agencies such as the local authorities, the Fire and Rescue Department and the Health Department. In addition to MOE, also the **Ministry of Rural and Regional Development** and the **National Unity Department** run preschools.

There is a **State Education Department** in fourteen states (the Federation consists of thirteen states and three federal territories). The State Education Department is headed by a Director who is responsible for the implementation of



educational programmes, projects and activities in the state. The main administrative functions of the Departments are as follows: (a) to organize and co-ordinate the administration of schools in the state with respect to staff and personnel establishment, finance and physical development; (b) to supervise educational programmes; (c) to formulate and implement state educational development plans; (d) to provide regular feedback information to the Ministry, where necessary, on the implementation of the National Education Policy.

In all states except Perlis, Malacca and the Federal Territories, there are additional administrative units at the district level. The **District Education Office** is an extension of the State Education Department and forms the linkage between the school and the Department. It helps the Department in supervising the implementation of educational programmes, projects and activities in the schools of the district. The states of Sabah and Sarawak have additional administrative units, known as **Residency Education Offices** in Sabah and **Division Education Offices** in Sarawak.

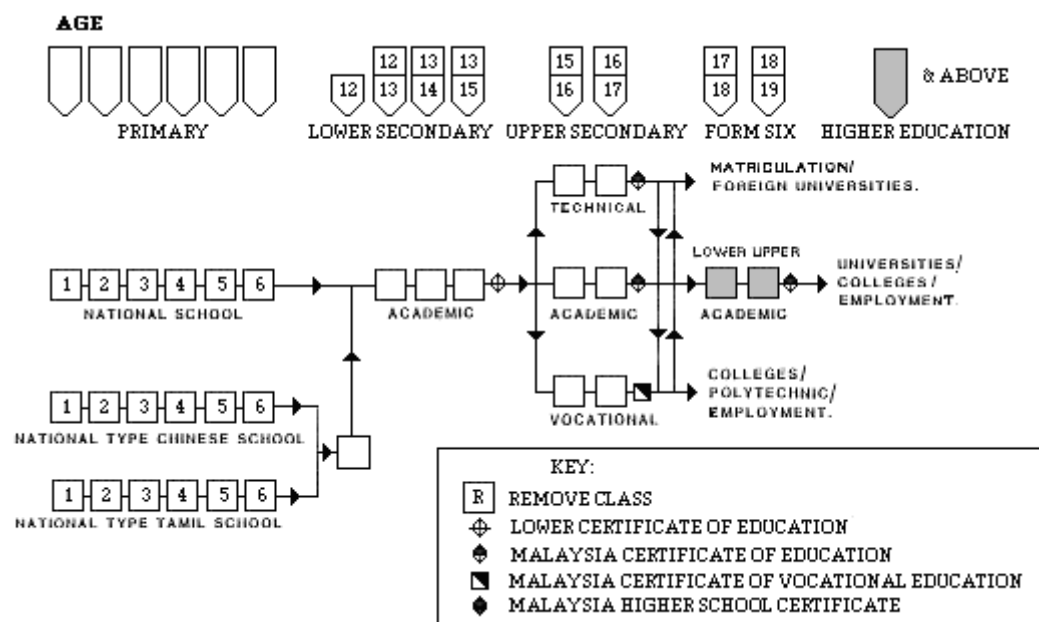
Every primary school is headed by a headmaster while each secondary school is headed by a principal. The headmasters and the principals are responsible for providing professional as well administrative leadership in schools. There is a **Board of Managers** for every government-aided primary and secondary school and in some government-owned primary and secondary schools. In addition, there is a **Parent-Teacher Association (PTA)** in every school. The **School Boards** and PTAs provide assistance in the management of schools and help to foster co-operation between the school and the community.

The **Malaysian Examinations Council (MEC)** is a statutory body under the MOE established in February 1980 under the Examinations Council Act 225. The MEC conduct the Malaysian University English Test and the Malaysian Higher Secondary School Certificate Examination (*Sijil Tinggi Persekolahn Malaysia*, taken upon completion of grade 13 or sixth form); the latter replaced in 1982 the Higher School Certificate (HSC) examination conducted by the University of Cambridge Local Examinations Syndicate. Examinations at the end of at the end of primary, lower secondary, and upper secondary education are administered by the **Examination Syndicate** of the MOE.

There are other agencies with parallel programmes that help to supplement the Ministry's efforts in providing education and training to meet the national development and manpower needs. Various ministries and government agencies also provide formal and non-formal training to both youth and adults to acquire specific skills and vocational trades. The **Ministry of Human Resources** runs industrial training institutes offering skills training programmes at basic, intermediate and advanced levels; these include apprenticeship programmes (mechanical, electrical, building and printing trades) as well as programmes to upgrade skills and train instructors. The **Ministry of Youth and Sports** provides technical and business training programmes and on-the-job youth training. The **National Electricity Board** offers training programmes in electrical and mechanical engineering. Furthermore, the **Majlis Amanah Rakyat (MARA)**, or the Indigenous Peoples Trust Council, under the Ministry of Entrepreneur and Cooperative Development, was established to set up vocational training opportunities for indigenous people. MARA runs junior science colleges (secondary level), especially in rural areas.

Structure and organization of the education system

Malaysia: structure of the education system



Pre-school education

Early childhood care and education (ECCE) targets children aged 0-6 years. Childcare centres or nurseries and programmes for the age group 0-4 years are coordinated by the Ministry of Women, Family and Community Development. Preschool education (kindergarten) is for children aged 4-6 years and is provided by several government agencies, private bodies and voluntary organizations. Preschool centres are registered with the Ministry of Education. Generally, kindergartens charge fees.

Primary education

Primary education covers a period of six years (but it can be completed in five to seven years) and the admission age is 6. It is divided into two three-year phases. There are two types of primary school, e.g. national school with the national language as the medium of instruction and the national-type school where the medium of instruction is Mandarin or Tamil. At the end of primary school, pupils sit the Primary School Assessment Test (UPSR), and if successful they receive the primary school certificate granting access to lower secondary education. Education at primary level is free and, according to the Education Amendment Act of 2002, is also compulsory.

Secondary education

Secondary education consists of two cycles. Lower secondary lasts three years (four years for Chinese and Tamil pupils, the additional year in order to help them to acquire sufficient proficiency in *Bahasa Melayu*, the main medium of instruction in



secondary schools). On completing the three-year lower secondary programme, students sit the Lower Secondary Assessment (PMR) examination and, if successful, they receive the lower certificate of education giving access to upper secondary. Upper secondary education lasts two years and is offered in academic, technical-vocational and religious (Islamic) schools. On completing two years at this level, students in academic and technical tracks sit the Malaysian Certificate of Education Examination (SPM), while those in vocational tracks sit the Malaysian Certificate of Education (Vocational) Examination. Post-secondary education programmes lasting one year prepare students for the Malaysian Higher Secondary School Certificate (*Sijil Tinggi Persekolahn Malaysia*, equivalent to completion of grade 13 or sixth form) Examination conducted by the Malaysian Examinations Council, as well as for matriculation examinations conducted by some local universities. Matriculation courses prepare students to meet specific entry requirements of certain universities and colleges, while the sixth-form programmes are designed to meet the entry requirements of all universities and colleges. Secondary education is provided free in public schools.

Higher education

Higher education institutions include community and university colleges, polytechnics and universities. A wide range of programmes are offered at the certificate, diploma and degree levels. Vocational or professional programmes (including those offered by teacher training colleges) lasting one to two years lead to the award of a certificate; programmes leading to the award of a diploma last two to three years. At the university level, bachelor's degree programmes last three to four years (five years in the case of medicine and dentistry). After the bachelor's degree, an additional one to two years are required for a master's degree or an advanced or specialist diploma. The minimum duration of doctoral degree programmes is three years.

The school year extends from the beginning of January to November. The minimum number of school days in a year is 190.

The educational process

Curriculum reforms in 1983, 1995, and 1999 and the increasing use of educational technology have enhanced the quality of education. The most recent curricular revision has combined the use of the content-based and outcomes-based approaches to curriculum design. More specifically it has focused on the introduction of new subjects, outcomes-based learning, student-centred pedagogical changes, and the introduction of new elements into the existing set of subjects. It also promotes the use of ICTs at the primary and secondary levels. The underlying principle in the Malaysian National Curriculum is that of a general education using an integrated approach in curriculum planning for knowledge, skills and positive attitudes. In terms of the Education Act 1996 and subsequent amendments, the National Curriculum prescribed by the Minister of Education and to be used by all schools, shall specify the knowledge, skills and values that are expected to be acquired by pupils at the end of their respective periods of schooling and shall include the core subjects as set out in the Schedule and such other subjects as may be prescribed. (Section 18.2).



The national curriculum is developed centrally and within the Ministry of Education. Three main departments are responsible for the design and development of the school curriculum: the Curriculum Development Centre (after 2008, the Curriculum Development Division under the Policy and Educational Development Sector, MOE), responsible for the design of the school curriculum from preschool to upper secondary; the Department of Technical and Vocational Education; and the Department of Religious and Moral Education.

All matters regarding policies need to have the approval of the Central Curriculum Committee, which consists of the directors of the main agencies at the Ministry level. For example, a new subject syllabus needs to be discussed and approved by this Committee before it can be implemented. Curricular programmes that have been approved are then discussed by the Curriculum Implementation Committee, comprising the Directors of Education of the fourteen states of Malaysia and representatives of the agencies of the Ministry.

The process of curriculum development is based on a cyclical model beginning with a needs analysis, followed by planning, development, piloting, dissemination and implementation, evaluation and then back to the identification of needs. The time taken between planning and implementation is usually about thirty months to allow sufficient time for textbooks to be ready and distributed and examinations to be prepared.

For the 1999 curriculum revision, the strengths and weaknesses of the curriculum were identified, as were the issues associated with the content, skills, values and attitudes, teaching and learning processes, as well evaluation and assessment. Through the mapping of these aspects, adjustments to the curriculum were made whether the matter in question should be retained, removed, reduced, added on or re-allotted. The mapping exercise involved both vertical and lateral consolidation. An example of a vertical consolidation is looking at a topic and examining it across all levels of secondary schooling. A lateral consolidation would entail looking at a topic and ensuring the topic is infused in other subjects where relevant.

The curricular revisions have resulted in a content- and outcome-based school curriculum. The content-based approach lists the topics or themes of the subject area that students are expected to acquire, while the outcome-based approach lists abilities and skills they are expected to master.

Coherence and integration between and across subject areas are emphasized as basic features of the curriculum. Indeed, specific aspects of education such as moral values, patriotism, science and technology, language, environmental education, and study skills are infused across the subject disciplines, with the purpose of consolidating these aspects which need further emphasis. Furthermore, the use of activity-based and student-centered pedagogical approaches is encouraged to reinforce and facilitate the development of critical and creative thinking skills. These include problem solving, analytical decision-making, high level questions, inquiry and discovery, and self-paced and self-directed learning.



Difficulties in curriculum development have involved deciding on the scope of the curriculum, finding people who have sufficiently specialized skills and experience in curriculum development, and overcoming the gap between planning and implementation. Furthermore, differing school environments can present a challenge to fulfilling the aspirations of a centralized curriculum, teachers tend to resist change, and very often the style and format of the examination papers and tasks, rather than curricular objectives, drive the classroom. Finally, the cascade model of dissemination has weaknesses, resulting in the dilution of the message, and thus in misconceptions and confusion.

Several factors have facilitated the implementation of curricular reform initiatives, including research findings, public opinions, world trends, social and economic needs and political pressures. Curricular reform initiatives were further facilitated with factors such as the government's continued efforts to expand and improve education and training by increasing the budget for education, the availability of basic infrastructure and training, and public awareness and support to carry out educational reforms to fulfil the needs of cultural, social, and economic development.

It is known that curriculum implementation cannot be ideally executed as a number of constraints operate in between. These constraints may include teachers' qualifications, motivation, attitudes, skills, content, and clarity in communication; they might also include pupils' attitudes and motivation to learn; other obstacles can be school-related such as class size, management, facilities, and the school complex. The language of instruction, and insufficient learning materials and teaching aids can also present impediments to curriculum implementation.

Beginning 2008, MOE started a trial run on 50 primary schools nationwide in implementing the new modular and thematic curriculum and school-based assessment. The rationale behind these progressive transformations in curriculum and assessment for primary schools is to ensure the relevancy of the schooling with the current and future needs by enhancing students' learning with the acquisition of new skills in thinking, communication, entrepreneurship, innovation and creativity. To achieve these, there are six core thrusts of the curriculum content and forms, namely: communication; students' well-being; physical and aesthetic; humanities; literacy in science and technology; and spirituality, values and attitudes. (Khair Mohamad Yusof, 2008).

In October 2010, MOE issued a circular on the implementation of the new Standard Curriculum for Primary School (KSSR) in Stage/Phase I (grades 1-3) starting from 2011. The new curriculum builds on and improves the Integrated Curriculum for Primary School (KBSR) introduced at the end of the 1990s.

Pre-primary education

As mentioned, early childhood care and education (ECCE) targets two age groups, e.g. children aged 0-4 years and 4-6 years. Childcare centres or nurseries and programmes for the age group 0-4 are coordinated by the Ministry of Women, Family and Community Development. Preschool education (kindergarten) is for children aged 4-6 years and is provided by several government agencies (the Ministry of Education, the Ministry of Rural and Regional Development, and the National Unity



Department), private bodies and voluntary organizations. All preschool centres are registered with the Ministry of Education. Generally, kindergartens charge fees.

A legislative-approved childcare centre is defined as a premise at which four or more children under the age of 4 from more than one household are received to be looked after for reward. Childcare centres fall into four main categories: (a) government-owned childcare centres (*Taska dalam komuniti* since 2006); (b) workplace childcare centres; (c) institution-based childcare centres with 10 children or more; and (d) home-based childcare centres with fewer than 10 children. All childcare centres need to be registered with the Department of Social Welfare (DSW), an agency under the Ministry of Women, Family and Community Development (MWFCDC). The Ministry is responsible for the approval and establishment of childcare centres in the country, whilst DSW serves as the main regulator and coordinator of ECCE programmes.

MWFCDC has been setting up community childcare centres in urban and rural areas with the objective of providing quality childcare services that is more accessible and affordable to the local community. The centres use a curriculum set by MWFCDC and is based on the active participation of the local community, parents, children, governmental agencies as well as private organizations.

The *Permata* Early Childhood Education and Care (ECEC) programme was introduced in 2006. The aim of *Permata* ECEC centres is to provide integrated quality care and early education services based on the needs of the local community to children below 5 years old. The programme adopts the community-based integrated approach, where the centres offer childcare services, outreach programmes, parenting courses, counselling, and healthcare services to help the local community develop a healthy lifestyle. Facilities include a community resource centre and library; some may offer the services of a speech therapist and nutritionist.

In order to enhance the quality of childcare providers, the MWFCDC appointed a Committee of experts in 2007 to develop a certificate in childcare in accordance with the National Occupational Skill Standard (NOSS). This was carried out with the collaboration of the Department of Skill Development, Ministry of Human Resources. The four qualification levels for the childcare sector under the NOSS are: childcare provider (SKM or Malaysian Skills Certificate Level 2); senior childcare provider (SKM Level 3); childcare centre supervisor (DKM or Malaysian Skills Diploma Level 4); and childcare manager (DLKM or Malaysian Skills Advanced Diploma Level 5). SKM Level 1-3 certificates correspond to secondary or post-secondary education; SKM or DKM Level 4 certificates correspond to tertiary education leading to an award not equivalent to a first university level; and DLKM Level 5-8 certificates correspond to tertiary education leading to a university or postgraduate university degree.

Kindergartens cater to children aged 4-6. Preschool education is provided by government agencies such as the Ministry of Education, Ministry of Rural Development, Ministry of National Unity as well as the private sector. The Education Act (1996) has included preschool education as part of the national school system. All kindergartens have to follow the curriculum guidelines issued by the Ministry of Education.



The pioneer in the setting up of preschools has been the Ministry of Rural Development which began in the early 1970s. In 2007 there were 8,307 preschools set up by this Ministry, commonly known as the *Kemas* preschools, located in rural or suburban areas and set up based on requests by local authorities. The total enrolment was 198,275 children. Classes are conducted at the community halls (rented or provided free), housing estates, private property, shop-houses (rented) or at premises built by the Ministry.

Under the Department of National Unity, *Perpaduan* preschools were established in urban areas where a 'friendly neighbourhood scheme' existed. Each preschool class has a Preschool Coordinating Committee made up of members of the local community who provide advice on the operation of the preschool and organize various activities for parents. Classes are conducted at community halls (rented or free of charge), housing estates, private property, shop-houses (rented) or built by the Ministry. Each enrolment requires a minimum of 20 children and a maximum of 35 children is allowed. In 2007 there were 1,496 *Perpaduan* preschools with a total enrolment of 38,952 children.

In 1992, the Ministry of Education (MOE) started setting up preschools as an annex to existing primary schools through a pilot project. This was extended to the whole country in 1993 and in 2007 there were about 5,905 preschools under MOE with a total enrolment of 147,625 children. Other providers of preschool education include also the State Religious Department and ABIM (Angkatan Belia Islam Malaysia).

In 2003, MOE issued the National Preschool Curriculum which all preschools, public and private are required to follow. The National Preschool Curriculum is based on the principles of *Rukunegara* and the National Philosophy of Education. It aims to develop the social, intellectual, physical and spiritual skills in children, as well as aesthetic values (creativity and appreciation). The implementation of any additional curriculum by private preschools requires permission from MOE. There is no restriction on the medium of instruction used at any registered preschool but the national language must be taught as a subject. Public preschools require a minimum of 10 children aged 4-6 years to start a class.

Preschool education for children with special needs come under the MOE which is in charge of programmes for special schools and special integrated primary schools for children; and the Ministry of Women, Family and Community Development which is responsible for implementing other special programmes. In 2000, existing special schools started an early intervention programme on their own initiative for children aged 4-6 years. In 2003, MOE approved the conversion of these early intervention programmes at 28 special schools to preschool programmes for children with special needs. The 28 programmes consist of 22 for the hearing impaired, five for the visually impaired, and one for those with learning disabilities. The Department of Social Welfare of the Ministry of Women, Family and Community Development run programmes for severely disabled children with the aim of enhancing their quality of life in line with the National Welfare Policy and National Social Policy. Special grants are also given to NGOs that help run these special programmes for children below 4 years old. (MOE-CDC, 2008).

The preschool programme is based on a curriculum which is appropriate for 4-6-year-olds and compatible with their development stage, interests and unique needs. The curriculum is dynamic, child-centered and responsive to the diversity of populations that are represented in each classroom. Basically, the principles of the preschool curriculum are: (a) the understanding of children's characteristics (they are active, curious and they need love, attention and security); (b) the aim is to expose children to a rich and stimulating environment; and (c) the programme provides a variety of support materials, such as concrete, printed, multi-sensory, interactive and user-friendly materials.

The general objectives of pre-school education are to enable the children to:

- develop love for their country;
- be well mannered and practice moral values;
- master basic communication skills;
- respect the national language;
- master the basics of the English language;
- appreciate physical activities as a basis for good health;
- develop physically and practice good health and safety measures;
- develop critical thinking skills through enquiry and the use of all the senses.

The above-stated objectives are materialized through respective learning areas. These are: language and communication; cognitive development; socio-emotional development; spiritual and moral development; physical development; aesthetic and creative development. The National Preschool Curriculum (NPC) proposes three major teaching and learning approaches to be used in preschools, e.g. learning through play, thematic approach, and the integrated approach. The recommended amount of instructional time is three and a half hours per day, five days a week. The suggested timetable is as follows: (a) class activities: 90 minutes (inside and outside classroom); (b) group activities: 60 minutes; (c) free activities: 30 minutes; and (d) break/snacks/rest: 30 minutes. The NPC stipulated that all preschools with the national language as the medium of instruction need to have at least two hours of English per week and two hours of Islamic studies if there are five or more Muslim students and two hours of moral education if there are five or more non-Muslim students in the class. Whereas preschools with medium of instruction other than the national language need to have at least two hours of national language, and one hour of English per week. The condition for the Islamic studies applied to these preschools too.

Informal and permanent evaluation of children performance is part of the preschool programme. Evaluation is carried out through various means which include observation, children's work projects and folio. Individual's progress and development is kept in the pupil's personal record.

There are several higher education institutions committed to providing training in early childhood education (ECE) to meet the growing demand of childcare centres and kindergartens. The demand for academic qualifications in ECE, particularly at diploma level, is increasing. A typical diploma programme includes theoretical and practical components that prepare early education professionals to work effectively



with infants, toddlers, and preschoolers up to the age of 8. Trainees obtained hands-on and school-based experience; they have to undergo practicum and internship to equip them with the best quality knowledge to be preschool teachers. The quality of the programmes offered by these institutions is assured by the Malaysian Qualifications Agency (MQA). MQA requires that a programme comprises a minimum of 90 credits for a diploma and 120 credits for a bachelor's degree. Graduates of a diploma programme should be able to: promote child development and learning of young children; build family and community relationships; observe, document, and assess to support young children and families; design, implement, and evaluate experiences that promote positive development and learning for all children; identify and conduct themselves professionally as members of the early childhood profession. The formulation of the preschool training curriculum is done by preschool education experts. Content of the curriculum includes the general early childhood education theories and practices. The curriculum takes into consideration the requirement of the national preschool curriculum. Many sessions of discussion and refinement took place before it is presented to a board to be certified before being used in the training institutes.

All teachers teaching in the preschools run by MOE are trained and certified with at least a diploma in teaching (normally a three-year programme). Many of them have a degree and master's degree in early childhood education. Teachers teaching in *kemas* preschool receive six-month training whereas *perpaduan* receive three-week training by their respective Ministries. However, since 2007, there have been a concerted effort by *kemas* and *perpaduan* to work with the Teacher Training Division of Ministry of Education to provide courses to their teachers to attain at least a diploma level. An estimated 90% of the MOE preschool teachers are diploma holders, and an additional 7,6% have a bachelor's degree.

According to national estimates, the gross enrolment ratio (GER) for 2005 indicated that only 1.8% of children in the age group 0-4 years were attending childcare centres. Possibly this figure does not reflect the actual situation in the country, as many childcare centres are not registered (the law states that if there is less than 10 children, the premise need not be registered). As of February 2007, only 1,831 childcare centers were registered handling a total of 34,100 children.

As regards ECE for the age group 4-6 years, generally known as preschool education, for 2005 the overall GER was estimated at 67.4% (68.3% for girls and 66.5% for boys). In 2005, 43% of the children were enrolled in privately run preschools. The states where private preschools are more prevalent are Labuan (70%), Johor (69%), Selangor (68%), Sarawak (68%), Negeri Sembilan (67%), Kuala Lumpur (66%), and Perak (66%). (MOE-CDC, 2008).

In 2005, nearly 630,000 children aged 4-6 were enrolled in public or private preschool programmes. (MOE, September 2008).

Primary education

Primary education aims at ensuring the overall, balanced and integrated development of a child's potential—which includes intellectual, spiritual, emotional and physical



aspects—in order to produce balanced and harmonious individuals with high moral standards. Primary education must enable pupils to:

- master the Malay language as the national language as well as the official language of the country;
- master the basic language skills (listening, speaking, reading and writing) in the medium of instruction;
- master arithmetical skills and use them in their daily lives;
- master study skills;
- speak, read, write and understand the English language as a second language;
- seek and acquire knowledge;
- develop leadership qualities and self-confidence;
- be sensitive towards man and his environment;
- master scientific and technical skills;
- be interested in, appreciate and participate in charitable works, and cultural and recreational activities in line with the national culture;
- look after one's health and physical fitness;
- acquire the skills of reading, reciting and understanding the meaning of chosen verses from the Quran (Muslim pupils);
- strengthen the basic of *Aqidah* (belief in God), perform religiously the rites of devotion to Allah, and constantly practice noble values;
- be patriotic;
- develop talents and creativity; and
- be well mannered and practice noble values.

There are two types of primary schools: national and national-type. The medium of instruction in national schools is the Malay language. National-type schools use Chinese or Tamil as the medium of instruction; however, Malay language is a compulsory subject. English is taught as a second language in all schools. There is automatic promotion from grade 1 to 6, and also continuous school-based assessment. The feedback from this assessment is used to monitor pupils' progress in the mastery of the basic skills, and plan strategies for school improvement. The duration of primary education is six years, but it may be completed in five to seven years. At the end of six years of primary education, pupils sit a common public examination, the Primary School Assessment Test (UPSR). The dropout rate is negligible.

The primary school curriculum, which gives emphasis to basic skills in reading, writing and arithmetic, was implemented in stages starting in 1983. By 1988, the curriculum was fully implemented in all classes at the primary school level. Taking the National Development Plan as a term of reference, the curriculum was formulated in line with the national education objectives and the national education philosophy.

The Integrated Curriculum for Primary School (ICPS) emphasizes the mastery, reinforcement and application of the 3Rs (reading, writing and arithmetic), the acquisition of complex skills and knowledge, pre-vocational skills, and the development of personality, attitudes and values. The ICPS consists of three areas: communication, man and his environment, and self-development. These areas are



divided into six components: basic skills; humanities and environment; art and recreation; spirituality, values and attitudes; living skills; and co-curriculum.

The first area, communication, comprises the basic skills components with emphasis on language skills (speaking, listening, reading and writing) and basic mathematical operations. The subjects identified in this area are the languages (*Bahasa Melayu*, English, Chinese and Tamil) and mathematics.

The second area, man and his environment, consists of two components: humanities and spirituality, values and attitudes. The humanities component comprises science and local studies introduced in grade 4, while the spirituality, values and attitudes component consists of two subjects: Islamic religious education (for Muslims) and moral education (for non-Muslims).

The third area is individual self-development. It comprises: arts and recreation, with emphasis on the physical and aesthetic development of the individual; living skills and co-curricular activities. The subjects identified for arts and recreation are music, art, and health and physical education. The elements of health are incorporated in physical education. Living skills is offered as subject discipline. It comprises the elements of manual skills, commerce and entrepreneurship, and family living. This subject is introduced starting in grade 4. Co-curricular activities, as an extension of the formal teaching and learning process, are categorized into uniformed bodies, societies, clubs and sports.

The ICPS is divided into two phases of three years each. Phase I comprises grades 1-3, with emphasis on the basics of reading, writing and mathematics. Phase II (grades 4-6) focuses on the reinforcement and utilization of the basic skills and the acquisition of knowledge.

The distribution of time in each Phase according to the subjects taught in national and national-type (Chinese and Tamil) schools is shown in the tables below:

Primary education (national schools): weekly lesson timetable according to the Integrated Curriculum of Primary School revised in 1999

Subject	Weekly time allocated to each subject (in minutes)					
	Phase I			Phase II		
	I	II	III	IV	V	VI
Malay language	450	450	450	300	300	300
English language	240	240	240	210	210	210
Mathematics	210	210	210	210	210	210
Science	–	–	–	120	120	120
Islamic or moral education	180	180	180	180	180	180
Music education	60	60	60	60	60	60
Health education	30	30	30	30	30	30
Physical education	30	30	30	30	30	30
Art education	60	60	60	60	60	60
Living skills	–	–	–	60	60	60
Local studies	–	–	–	60	60	60
Assembly	30	30	30	30	30	30
Total weekly time	1,290	1,290	1,290	1,350	1,350	1,350

Source: Ministry of Education, 2001. Teaching periods usually last 30 minutes.

Notes: The subject 'local studies' is organized around three areas of study: home and family, the neighbourhood, the school; the locality, district and state; the nation. The aim is to enable pupils to examine and discuss the interactions between man and the environment, as well as social and economic development of the nation, in order to instil awareness, pride and appreciation of the nation's achievements and to nurture a sense of commitment and patriotism.

The subject 'living skills' comprises the following elements: manipulative skills, commerce and entrepreneurship, and family living.

Primary education (national-type schools, Chinese and Tamil): weekly lesson timetable according to the Integrated Curriculum of Primary School revised in 1999

Subject	Weekly time allocated to each subject (in minutes)					
	Phase I			Phase II		
	I	II	III	IV	V	VI
Malay language	270	270	270	150	150	150
Chinese or Tamil language	450	450	450	300	300	300
English language	–	–	–	90	90	90
Mathematics	210	210	210	210	210	210
Science	–	–	–	150	150	150
Islamic or moral education (*)	150	150	150	150	150	150
Music education	60	60	60	60	60	60
Health education	30	30	30	30	30	30
Physical education	30	30	30	30	30	30
Art education	60	60	60	60	60	60
Living skills	–	–	–	60	60	60
Local studies	–	–	–	120	120	120
Assembly	30	30	30	30	30	30
Total weekly time	1,290	1,290	1,290	1,440	1,440	1,440

Source: *Ibid.* Teaching periods usually last 30 minutes. (*) In Phase I, 210 minutes per week are allocated to Islamic education for Muslim students.



As mentioned, in October 2010 MOE issued a circular on the implementation of the new Standard Curriculum for Primary School (KSSR) in Stage/Phase I (grades 1-3) starting from 2011. The weekly lesson timetable, for national and national-type schools, is presented below:

Malaysia. Primary education, Phase I (grades 1-3): weekly lesson timetable according to the new Standard Curriculum for Primary School of 2010

Module	Weekly time allocated to each subject (in minutes)		
	National school	Chinese	Tamil
<i>Core modules:</i>			
Malay language	360	300	300
English language	300	150	150
Chinese language	–	360	–
Tamil language	–	–	360
Mathematics	180	180	180
Islamic or moral education	180	120	120
Physical education	60	60	60
Health education	30	30	30
<i>Thematic modules:</i>			
Visual arts	60	60	60
Music	30	30	30
Science and technology	60	60	60
<i>Elective modules:</i>			
Additional language (Arabic or other national languages)	90	–	–
Assembly	30	30	30
Total weekly time	1,380	1,380	1,380

Source: MOE Circular dated 14 October 2010.

There are two types of formal evaluation. The first one is known as Primary School Assessment Test or *Ujian Penilaian Sekolah Rendah* (UPSR). The evaluation is carried out mainly on cognitive aspects focusing on basic skills of reading, writing and mathematics. The subjects that are assessed in UPSR are *Bahasa Melayu* (or Chinese or Tamil), English, science and mathematics. However, in addition to these subjects Malay pupils have to undergo an assessment known as *Penilaian Asas Fardu Ain* (PAPA) for religious education, which is carried out during the teaching process. Pupils' achievement in PAPA is recorded in the UPSR slips.

The second type of assessment is known as *Penilaian Tahap Satu* (PTS) or Level One Assessment (LOA). PTS was first introduced in 1996. This assessment is an aptitude test that enables the selection of those grade 3 pupils who master the basic knowledge and skills and with high learning potential to proceed directly to grade 5. This is in line with the education policy which stipulates that primary education can be completed in five/seven years. Pupils are tested on their abilities and potential in verbal, quantitative and thinking skills.



In addition to these two assessments, there is the school-based assessment or *Penilaian Kemajuan Berasaskan Sekolah* (PKBS). It is implemented throughout the year during the teaching and learning process in order to evaluate pupils' progress in the cognitive, effective and psychomotor aspects. The assessment is done through observation, verbal and writing. The information from PKBS is used by teachers to plan further reinforcement concerning pupils' achievement and the teaching process.

Universal primary education has been achieved with a participation rate of 98.4% in the public sector in 2003. According to national estimates, in 2003 there were 7,504 primary schools in the country and the average teacher/pupil ratio was 1:17. (MOE, 2004).

In the period 2000-2005, the gross enrolment ratio at the primary level has been between 94.5% and 96.1%. The percentage of children who enter grade 1 and successfully reach grade 6 was estimated at 98.1% in 2005. (MOE, September 2008).

According to MOE statistics, in 2008 there were 7,644 primary schools (government and government-assisted) with 3,154,090 pupils enrolled (of whom 48.6% were girls) and 210,912 teachers. (Department of Statistics, 2010). Over 90% of teachers are certified and 100% of teachers meet the minimum standards. (MOE, September 2008).

Students with special needs are provided education opportunities in special schools and in integration programmes in regular schools. As of 2006, there were 32 national special education schools, two vocational secondary schools, and 1,282 Integrated Special Education Programmes (special classes in mainstream schools); the total enrolment for these programmes was 29,169 students. (MOE, 2008).

Secondary education

Secondary education is basically an extension of the primary level. Education at this level is general in nature and is divided into two cycles: lower (Forms 1-3) and upper secondary (Forms 4 and 5). Pupils from the national primary schools proceed to Form 1, while pupils from the Chinese and Tamil schools study one additional year in the transition class before entering Form 1. As mentioned, the transition class aims at enabling pupils to acquire sufficient proficiency in Bahasa Melayu, which is the medium of instruction in secondary schools. However, pupils who have performed well in the Primary Assessment Test are allowed to proceed directly to Form 1.

Secondary education aims at further develop the potential of the individual in holistic, balanced and integrated manners, encompassing the intellectual, spiritual, emotional, and physical aspects in order to create a balanced and harmonious human being with high moral standards. In order to achieve this aim, education at the secondary level must enable students to:

- increase their language proficiency in order to communicate effectively;
- upgrade their competence in and use of Bahasa Melayu as the official and national language for the acquisition of knowledge and the achievement of national unity;



- develop and enhance their intellectual capacity with respect to rational, critical and creative thinking;
- acquire knowledge and develop mastery skills, and to use them in daily living;
- be able to develop skills to cope with new areas of knowledge and development in technology;
- develop their abilities and faculties for the betterment of themselves and society;
- develop the confidence and the resilience to face challenges in life; develop good manners and practice moral values; strengthen the basic *Aqidah* (belief in God);
- understand, be aware of and appreciate the history as well as the socio-cultural milieu of their country;
- be aware of the importance of one's health and to maintain it;
- be sensitive, concerned about and appreciate the environment and its aesthetic value;
- acquire, appreciate and practice accepted moral values; and
- appreciate knowledge and constantly strive towards increasing and developing it.

Students follow a common curriculum which does not neglect the cultural values of the major ethnic groups in the country. This is done through the implementation of the Integrated Secondary School Curriculum (ISSC, popularly known as the KBSM). The ISSC adheres to the following basic principles:

- Continuity of education from primary to secondary schools: the acquisition of basic skills (reading, writing and arithmetic), the provision of basic knowledge and the inculcation of values that will ensure the holistic development of the individual are further developed and reinforced at the secondary school.
- General education for all students: at both the lower and upper secondary levels, students follow a common basic education programme. This programme comprises core subjects that are compulsory for all.
- Subject disciplines: subjects of the former secondary school curriculum are retained but reorganized in line with the emphasis of the ISSC.
- Integration of the intellectual, spiritual, emotional and physical aspects: the curriculum in its entirety will fulfill the intellectual, spiritual, emotional and physical needs of the students. All subject areas must ensure that these aspects are developed and incorporated.
- Emphasis on values: the inculcation of accepted moral values is made possible by incorporating them in all ISSC subjects through the concept values across the Islamic religious education for Muslims and moral education for non-Muslims.
- Upgraded use of *Bahasa Melayu*: the use of *Bahasa Melayu* is to be reinforced in all curricular subjects (except English).
- Lifelong education: the curriculum has to nurture the love for knowledge and to provide opportunities for the acquisition of study skills and for the inculcation of positive attitudes that will motivate students to constantly seek knowledge.



The special one-year programme for pupils from the Chinese and Tamil national-type schools has four main aims: (a) to enable students to master *Bahasa Melayu*, so that they will be adequately equipped to follow secondary school education; (b) to enable students to communicate effectively in *Bahasa Melayu*; (c) to nurture the spirit of citizenship among the students; and (d) to inculcate the values of the Malaysian society. In order to achieve these aims, in the transition class the following subjects are taught: Bahasa Melayu; English language; Chinese language; Tamil language; Practical use of Bahasa Melayu; Physical and health education; Art education.

On completing the three-year lower secondary programme, students sit the Lower Secondary Assessment examination. The lesson timetables for lower secondary education are shown in the tables below:

Transition year (national-type schools, Chinese and Tamil): weekly lesson timetable according to the Integrated Curriculum of Primary School revised in 1999

Subject	Weekly time allocated to each subject (in minutes)
Malay language	520
English language	200
Chinese or Tamil language	120
Practical use of Malay language	440
Art education	80
Physical education	40
Health education	40
Total weekly time	1,440

Source: Ministry of Education, 2001. The transition year is for pupils from Chinese and Tamil national-type schools, in order to acquire sufficient proficiency in Malay. However, pupils who have performed well in the Primary Assessment Test are allowed to proceed directly to Form I.

Lower secondary education: weekly lesson timetable

Subject	Weekly time allocated to each subject (in minutes)		
	I	II	III
Malay language	240	240	240
English language	200	200	200
Mathematics	200	200	200
Islamic education (*)	160	160	160
Science	200	200	200
Integrated living skills	160	160	160
Geography	120	120	120
History	120	120	120
Physical education	40	40	40
Health education	40	40	40
Art education/Music	80	80	80
Total weekly time	1,560	1,560	1,560
Additional subjects:			
Chinese/Tamil language	120	120	120
Arabic language (communication)	240	240	240

(*) For Muslim students (120 minutes per week in the case of moral education for non-Muslim students).

Education at the upper secondary level is offered in academic and technical schools. Technical schools offer technical, vocational and skills-based education. Based on their performance in the lower secondary examination, students are streamed into one of these schools. Education at this level covers a period of two years. Although education at this level comprises academic, technical and vocational tracks, it is considered general education by virtue of the common core subjects taught in all of these schools. On completing two years at this level, pupils in academic and technical tracks sit the Malaysian Certificate of Education (MCE) Examination, while those in vocational tracks sit the Malaysian Certificate of Education (Vocational) Examination.

The general education curriculum at the upper secondary level allows the students to choose subjects based on their own interests and potential. Core subjects taught at the lower secondary level are continued to be taught at the upper secondary level. Core subjects are mandatory subjects and all students must sit for national examinations in these subjects at the end of Form 3 (lower secondary) and Form 5 (upper secondary). The core subjects are Malay, English, science, mathematics, Islamic religious education/moral education and history. For compulsory subjects, students do not necessarily sit the examination. The compulsory subjects are geography, physical and health education, visual arts, living skills, music, and civics and citizenship education. For elective subjects, students may select any one of the subject packages offered. The packages include the pure sciences, additional science, technology, applied arts, Islamic studies, humanities, vocational studies, languages, and information and communication technology. In total, there are over 100 subjects offered at the secondary level. (UNESCO Bangkok, 2009). The choice of electives is subject to certain conditions to ensure that a balance is maintained among the elective groups. Additionally, choosing one of the subjects under the vocational and technical group is mandatory.



On average, the total teaching time per week at the upper secondary level is 25.5 hours (1,600 minutes) consisting of forty teaching periods of forty minutes each.

Post-secondary education programmes lasting one year prepare students for the Malaysian Higher Secondary School Certificate Examination (*Sijil Tinggi Persekolahn Malaysia*, equivalent to completion of grade 13 or sixth form) conducted by the Malaysian Examinations Council, as well as for matriculation examinations conducted by some local universities.

Technical education is offered in secondary technical schools. The technical stream provides students with a general academic education although with a strong foundation in technical and science subjects, to enable them to pursue higher education in the technical field or to seek employment. Technical schools aim at: (a) providing basic technical education to enable students to further their education in polytechnics and universities; (b) providing scientific and technical education to students who have the aptitude for such subjects and to foster and maintain that interest; and (c) raising the level and standard of skilled manpower to meet the industrial needs of the country.

Like other academic schools during the implementation of the ISSC at the upper secondary level in 1992, all the students in technical secondary schools are required to follow the same core subjects. On average, the total teaching time per week is twenty-eight hours (1,680 minutes) consisting of forty-two teaching periods of forty minutes each.

Vocational education in secondary technical schools provides students with basic skills for employment. The approach towards vocational education is general in nature, with the intention of providing basic knowledge and skills so that the students are adaptable, flexible, and trainable for the work world. The objectives of vocational education are to: (a) provide technical manpower for the industrial and commercial sectors; (b) provide a flexible and broad-based curriculum to meet not only immediate but also future needs and changes in industries; and (c) provide the foundation for skill and knowledge on which to build subsequent education and training.

The vocational education stream focuses on academic and technical subjects leading to the Malaysian Certificate of Education-Vocational (MCEV), whereby students may seek to study in the polytechnics and other higher education institutions. They may also opt for the job market. Skills training education offered in secondary technical schools also emphasizes practical work to develop competency in trade skills required by related industries. Students are prepared for the National Vocational Training Certificate.

Besides providing vocational education and training to students in the formal education system—in the context of continuing education—technical schools also offer special part-time courses for Malaysian Certificate of Education holders wishing to pursue skills in these areas. To enhance quality vocational education and training relevant to the job market demand, the private sector is encouraged to participate in vocational education programmes. Several firms have assisted the Ministry of Education in organizing training programmes to bring the vocational knowledge and skills closer to the world of work. The private sector enterprises are encouraged to



provide greater on-the-job training with market-oriented industrial training programmes and to strengthen the labour market information system. This in turn would allow for greater mobility of labour.

In 2003, the participation rate (public sector only) was estimated at 84.4% for lower secondary and 73.5% for upper secondary. According to MOE statistics, in 2008 there were 2,091 (government-assisted) academic and 90 technical secondary schools, and in addition 40 MARA junior science colleges. The total enrolment was 2,241,654 students in academic schools, 69,006 in technical schools, and 26,752 students in junior science colleges. In the same year, the number of teacher was 151,303 in academic schools, 7,713 in technical schools, and 2,427 in junior science colleges. Girls represented 49.8% of the total enrolment. Concerning sixth form and matriculation, in 2008 the total enrolment was 105,165 students, of whom 65.9% were girls. (Department of Statistics, 2010). Of all secondary teachers, 85.4% have a degree qualification, 14% have a diploma level qualification, and 0.6% are either qualified contract teachers or untrained teachers. Women comprise almost two-thirds (or 64.8%) of the secondary teaching workforce (UNESCO Bangkok, 2009).

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

Assessing learning achievement nationwide

Learning achievement at the national level is measured through the Primary School Assessment Test administered at the end of primary education. The Test assesses pupils' academic achievement in four main subjects: *Bahasa Melayu*, English language, mathematics and science. The objective is to evaluate the achievement of primary students in reading, writing, scientific and numeracy skills in Malay and in the pupils' own language (Chinese or Tamil).

The Test is a norm reference achievement test. Therefore, data concerning reading and writing should not be equated with the level of literacy, as candidates who did not meet the level of achievement set for a particular year may still be literate.

Within the framework of the Education for All (EFA) 2000 Assessment, results of the Test were used to measure learning achievement in three basic areas (reading, mathematics and writing) from 1994 through 1997. Data made available covered only those in the public sector. For the year 1994, about 95% of grade 6 pupils exceeded the minimum level of achievement in reading (comprehension); the percentage was about 93% in 1995, 96% in 1996 and about 96% in 1997. In the writing domain, the percentage of grade 6 pupils who mastered the minimum level of achievement was 78.3% in 1994, 78.7% in 1995, 80.4% in 1996, and 81.4% in 1997.



Grade 6 pupils' performance in mathematics (numeracy skills) shows an upward trend. In 1994, 68.9% of the pupils managed to perform impressively exceeding the minimum achievement level. This performance improved further to 71.9% in 1995, 77.5% in 1996, and 77.9% in 1997. Grade 6 pupils' performance in science was first assessed in 1997, after its introduction in the national curriculum. Data show that 76.3% of the pupils exceeded the minimum level in 1997, and 76.5% in 1998. (MOE, 1999).

In 2000, the instrument for Standard for Quality Education in Malaysia (SQEMS) was developed to assess the total quality management and the performance standards of the school and other institutions of learning within the purview of the MOE. The SQEMS assesses schools across four dimensions: leadership direction, organizational management, educational programme management, and pupil accomplishment. SQEM is also used by educational institutions for self-appraisal to assess their performance. In 2006, over 6,000 schools provided MOE their self-assessment results with about 21% of the schools reporting rating themselves as excellent or outstanding, 46% as promising, and 33% as mediocre or weak. As regards students' achievement in the primary and lower secondary national examinations, the percentage of students reaching at least the minimum standard increased in the period 2000 to 2005. (MOE, September 2008).

In the 2007 Trends in International Mathematics and Science Study (TIMSS), which provides international comparisons on mathematics and science achievement over time for students with eight years of schooling in participating countries, around 20% of Malaysian students failed to meet minimum benchmarks for both mathematics and science, compared to only 5% in science and 7% in mathematics in 2003. Malaysia will participate in the Programme for International Student Assessment (PISA) to ensure that student outcomes and improvements are objectively measured and consistently compared with other countries. (Economic Planning Unit, 2010).

As regards TIMSS 2007, Malaysia ranked 20 in mathematics (10 in TIMSS 2003, and 16 in TIMSS 1999) and ranked 21 in science (20 in 2003, and 22 in 1999).

Concerning TIMSS 2003, 5,314 Malaysian students took part in the Eighth-grade survey along with 46 other countries. Malaysia's average score for mathematics, which was 508, was well above the international average of 466. While the average score for science, which was 510, was also above the international average of 473. Although access and participation in secondary education has improved for rural and remote students, their educational achievement remains lower than that of their urban counterparts. Rural students consistently perform poorly in English, mathematics, and science. (UNESCO Bangkok, 2009).

Teaching staff

The Philosophy of Teacher Education, formulated in 1982, has determined the direction of teacher education. This document emphasized the desire to educate and produce teachers who are noble and caring, knowledgeable and skillful, creative and innovative, resilient and competent, scientific in outlook, committed to uphold the aspirations of the nation, proud of their heritage and dedicated to the development of the individual and the preservation of a united, progressive, and disciplined society.

The main concern of the Ministry of Education (MOE) is to provide basic pre-service as well as in-service teacher training to meet the requirements of all schools. Both the teacher training colleges and the universities undertake the task of teacher education and training.

The Ministry, through the Teacher Education Division (TED), is directly involved in the planning and coordinating teacher training programmes conducted in teacher training colleges and universities. It plans and draws up the curriculum and assessment guidelines for all training programmes, both pre-service and in-service, at the diploma and certificate levels to meet current requirements of the schools. In addition, it plans and coordinates ongoing staff developments programmes, both at the ministry and college levels, locally and overseas in order to enhance the quality of training. It coordinates and monitors all teacher education initiative both at the Ministry and college levels to ensure effective implementation. Finally, it coordinates and collaborates with all divisions of the Ministry of Education and other relevant educational institutions to ensure a coherent system of training and education.

The main objectives of the TED are to: (a) train teachers of high calibre to fulfil the requirements of all pre-school, primary, secondary, vocational and technical education within the national education system; (b) constantly upgrade and update the knowledge, competency and efficiency of trained teachers and lecturers in both academic and professional areas; and (c) develop teacher training colleges (TTCs) as centres of excellence.

Both teacher training colleges and universities offer pre-service training programmes. The universities offer two types of programmes: a one-year postgraduate diploma in education, and a four-year integrated bachelor's degree. Similarly, teacher training colleges offer a six-semester (or three-year) diploma in teaching programme, and a one-year (two semesters) postgraduate diploma in teaching for university graduates who wish to enter the field of education.

The three-year diploma programme attempts to provide quality education to student teachers. Emphasis is on upgrading with quality of training, which includes professionalism in teaching and ICT literacy. The training programme emphasizes school-based training, focusing on the integrated concept, usage of various media and reflective thinking to bridge the theoretical and practical aspects of teaching and learning in the classroom.



The one-year, pre-service postgraduate diploma in teaching (PGDT) was first introduced in 1983 to meet the demand of graduate teachers in areas such as mathematics, science, Malay language, English, Islamic studies and technical subjects. Since then, the number of areas of specialization has increased. In 1996, a total of 22 subject specializations and 21 elective subjects were offered in line with the newly integrated school curriculum. The teacher education curriculum offered by the universities is similar in scope to the curriculum implemented in teacher training colleges. 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 PGDT courses. Another 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.

The MOE has systematically planned over the years to upgrade the professional competence of teachers through in-service training. The ultimate objective of in-service training is that every teacher would undergo retraining after a period of five years, in order to meet new demands and be up-to-date in terms of current knowledge and teaching techniques. Various seminars, workshops, and in-house training programmes on the new curriculum are conducted for schoolteachers.

The one-year, in-service diploma in teaching is provided to teachers who are required to teach subjects for which they are not adequately trained. Twenty subject majors are offered, namely: mathematics, science, Malay language, Malay literature, Islamic studies, Arabic language, living skills, special education, physical and health education, management of resource centres, engineering technology, commerce and accounting, home economics, guidance and counselling, information technology, music, art education, educational technology, English as a second language, and Chinese studies. The programme is accredited by the local universities and participants who excel may be given credit transfer to the second year of a degree programme at local universities in the same subject area.

The fourteen-week professional development courses are customized courses to upgrade and update the professional skills and knowledge of both the primary and secondary school teachers. The programme offers twenty specialized courses that teachers can choose from.

The current emphasis on quality education requires that the teaching force be competent in the delivery of the curriculum. The transference of learning requires a set of knowledge, skills, and attitudes, from technical know-how to the creative art of teaching. To enhance the quality of training at the teacher training level, the TED has employed the main following strategies:

- *Upgrading teacher educators' entry qualifications.* Existing staff who have basic degrees and who qualify within the age criteria are encouraged to apply for scholarships for master's degree and doctorate programmes either locally or overseas. The TED is working collaboratively with both



local and foreign universities to identify programmes to upgrade the quality of teacher trainers.

- *Research and development.* Educational research has been instituted as part of the college culture. However, it received a mixed response because of the heavy workload and the lack of a working knowledge of research. Colleges and teacher educators are encouraged to take an active part in investigating their own teaching in the field of pedagogy, management, and evaluation.
- *Curriculum support programmes.* These programmes are necessary for the effective implementation of the curriculum. Teacher educators need to have teaching-learning resources and a mastery of a variety of strategies for the delivery of the curriculum. Some of the programmes implemented include those for English, science and mathematics to improve the delivery system and teaching-learning strategies based on the reflective and process-based approach. In view of the emphasis given to science and mathematics, a similar curriculum support project was also set up to produce teaching and learning materials based on the science and mathematics teacher training syllabi.
- *Management courses for administrators and school heads.* The MOE conducts courses for administrators and school heads to upgrade their leadership and management skills so that they can effectively lead their institutions or schools. The institutionalization of Excellent Schools and Excellent Heads has provided the incentives necessary to stimulate creativity and excellence.
- *Publicizing the achievements of teachers.* All the national newspapers in the country have a weekly column which focuses on school or educational institutions' achievement and initiatives. This helps to promote excellence in education and constitutes an essential element to support teachers and to upgrade their professional esteem and self-worth.

Beginning 2004, the MOE has embarked on a programme 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 programme.

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. 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.

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. 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. Teacher Activity Centres and Resource Centres have been built in various districts. 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 had set up programmes with disadvantaged schools to improve teaching and learning.

In the past, the selection of candidates for the pre-service programmes in the teacher training colleges was based on three main criteria: (a) performance grades in the tests taken at the end of secondary education; (b) performance in the written qualifying test, the Malaysian Teachers Selection Test (M-TeST), or the Teachers Personality Inventory (InSaK); and (c) performance in an interview. Candidates who met the high school leaving examinations requirement then sat the InSaK or M-TeST, and successful candidates would be called for an interview. Enrolment in the teacher training programmes in the local public universities, however, is based solely on performance in the high school leaving exam. Beginning in 2007, common procedures involving all three criteria that were long used by teacher training colleges under the MOE were integrated with the requirements of the Ministry of Higher Education as a way to standardize teacher selection. This is to ensure that only those who meet the requirements and have the interest and inclination to be teachers are selected for teacher training programmes. Additionally, the pre-service training of primary teachers has been entrusted to the teacher training colleges, while the pre-service training of secondary teachers is now the sole responsibility of the universities. The turning over of secondary teacher training to universities ensures that graduates have a sound foundation in educational theory and that their training is commensurate with other university graduates. (UNESCO Bangkok, 2009).

The quality and relevance of the teacher training programmes have also been given much emphasis in the new system introduced in 2007. During pre-service training, each future teacher is trained in two subject areas. A typical programme consists of 80% subject specific content, 20% education-related courses, plus internship (practicum). English is a core component in the teacher preparation programme and is compulsory for every trainee. Basic and generic skills such as ethnic relations, Islamic and Asian civilizations, language and numerical literacy, are compulsory across all subject specializations. Elements of innovation and critical thinking skills are given emphasis and incorporated into these components.

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

- Bachelor Degree in Education/Integrated Bachelor Degree with Education (ISMP): This is the main four-year programme conducted at public universities that supply teachers for secondary schools. There are also bachelor degrees offered by the teacher training colleges/institutes that supply teachers for primary schools.
- Postgraduate Diploma (DPLI): This one-year full-time programme (including a required practicum) prepares trainees with a degree in specialized areas to teach in primary or secondary schools. It was first introduced to prepare teachers to cater for the urgent need created by the

rapid expansion of secondary education in the past decades. It is a 38-week course aimed at developing trainees' pedagogic skills and knowledge of teaching in primary or secondary schools.

- LPBS (school-based on the job training): The LPBS is a special apprenticeship that involves graduates in specialized areas who are temporarily employed to fill vacant posts in schools and given on the job training by the teacher training colleges/institutes in cooperation with the schools. Trainees are employed to teach as permanent certified teachers upon completion of the programme. This programme gives priority to temporary uncertified teachers teaching in their own hometowns, especially in remote and rural areas to overcome the shortage of qualified teachers in these areas. (*Ibid.*).

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

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

Important qualification upgrading courses are being offered. Special bachelor's degree courses are designed for non-degree teachers, while master's and doctoral degree courses are targeted at graduates. Besides these two channels, non-degree teachers can also apply for normal bachelor degree programmes conducted by the universities. The MOE also provides scholarships with full-pay leave for teachers to continue their studies at the postgraduate level, locally or abroad, in order to improve the knowledge and skills of teachers in areas related to teaching and learning in specific subject areas. Continuous Professional Development (CDP) and in-service training (In-SeT) are essential components in maintaining teaching quality. Each year In-SeT is allocated a sizeable portion of the educational recurrent budget and the amount increases each year. Two types of In-SeT are the qualification upgrading courses, and knowledge and skills upgrading short courses, which take less than one year. The new remuneration system (SSM) circular requires every teacher to attend a minimum of seven days in-service training a year. Knowledge and skills upgrading courses for teachers are conducted through a series of short in-service courses, workshops, and seminars. In-service courses are conducted at the school, district, state, and national levels organized by different education offices and divisions, departments, and institutions in the MOE. Schools are encouraged to conduct in-house staff development programmes covering a wide range of areas based on their needs.



The Curriculum Development Centre/Division conducts courses related to curricular change. Some of these courses are conducted at the national level, while some are at the state and district levels. In-service courses are mandatory for teachers involved in curriculum changes or new initiatives. (*Ibid.*).

The entry level salary of teachers depends on whether the teacher holds a degree or diploma. Teachers with degrees have a significantly higher salary than those holding a diploma. Even though the salary of teachers has increased over the years, it is still lower than those of several other public service fields, such as the medical, engineering and general administrative (management) sectors. Despite the salary gaps between the teaching profession and other sectors, teaching remains an attractive profession to the public. This is evident from both the large number of applicants for teacher education programmes each year and the low attrition rate among teachers. (*Ibid.*).

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Web resources

Malaysian Examinations Council: <http://www.mpm.edu.my/> [In Malay and English. Last checked: May 2011.]

Malaysian Qualifications Agency: <http://www.mqa.gov.my/> [In Malay and English. Last checked: May 2011.]

Ministry of Education: <http://www.moe.gov.my/> [In Malay and English. Last checked: May 2011.]

Ministry of Higher Education: <http://www.mohe.gov.my/> [In Malay and English. Last checked: May 2011.]

Ministry of Human Resources: <http://www.mohr.gov.my/> [In Malay and English. Last checked: May 2011.]

Ministry of Women, Family and Community Development: <http://www.kpwkm.gov.my/> [In Malay and English. Last checked: May 2011.]

For updated links, consult the Web page of the International Bureau of Education of UNESCO: <http://www.ibe.unesco.org/links.htm>