Seminar on Growth Strategies for Secondary Education in Asia

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Seminar on Growth Strategies for Secondary Education in Asia

“Curriculum Renewal in Malaysia”

by
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“…; no one knows on what principle we should proceed - should the useful in life, or should virtue, or should the higher knowledge, be the aim of our training; all three opinions have been entertained” (Aristotle, Politics, B.VIII).
BACKGROUND TO CURRICULUM RENEWAL

EDUCATION IN MALAYSIA
TERMS OF REFERENCE / MANDATE FOR CURRICULUM DEVELOPMENT

NATIONAL PHILOSOPHY OF EDUCATION

… 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... knowledgeable and competent, who possess high moral standards, ..

Balanced & Wholistic Development

CURRICULUM IN THE 1996 EDUCATION ACT

“..... an educational programme ... which encompasses all the knowledge, skills, norms, values, cultural elements and beliefs to help develop a pupil fully with respect to the physical, spiritual, mental and emotional aspects as well as to inculcate and develop desirable moral values and to transmit knowledge”
BACKGROUND TO CURRICULUM RENEWAL

NATIONAL DEVELOPMENT PLANS AND CURRICULUM RENEWAL

- VISION 2020 – developed nation status
- K- ECONOMY MASTER PLAN – education to produce knowledge workers

MOST RECENT CURRICULUM RENEWAL

2002 – 2003 SECONDARY EDUCATION REFORM
- 2002 – CURRICULUM REVISION FOR ALL SUBJECTS
- 2003 – SCIENCE AND MATHEMATICS IN ENGLISH
Late 1990s and early 2000s saw major changes in curriculum and instruction in Malaysian schools.

**ICT-Related**
- **ICT Literacy as a programme**
- **Smart Schools** – individualised, self-directed learning
- **School Computerisation Project** – computer labs

**Knowledge-Related**
- Lengthening of Basic Education from 9 to 11 years
- **A Knowledge-Based Learning Culture**
- Emphasis on Critical and Creative Thinking Skills
MALAYSIA’S DEVELOPMENT - RAPID CHANGES

**Curriculum Development**: continuously keeping abreast of a rapidly changing society

Rapid changes: School has to ‘CATCH-UP’ with rapid (& uneven) social and economic developments within the country

Significant Rural and Urban Differences

**EDUCATION A MEANS OF NARROWING RURAL-URBAN DIVIDE**

Striking a Balance between dealing with basic problems, e.g. access to schools in remote areas, while forging ahead with programmes to develop future scientists and technocrats
POINTS FOR DISCUSSION

1. Discuss policy options
2. Exchange promising approaches

- 11 YEARS BASIC EDUCATION
- CORE CURRICULUM & ELECTIVES
- GLOBALISATION / K-ECONOMY
- VOCATIONAL EDUCATION
- NEW CURRICULUM AREAS
- NEW CLASSROOM APPROACHES
- ISSUES AND CHALLENGES
- PROMISING APPROACHES
Points for Discussion

11 YEARS BASIC EDUCATION

CORE CURRICULUM & ELECTIVES
11 YEARS BASIC EDUCATION

11 years schooling (with automatic promotion) following 1996 Act

9 years Basic Education

Over 30% leave school to enter workplace after 9 years

The over 30% of students who would normally leave school take vocational electives

11 years Basic Education

Better qualified workforce for industrial economy

Expansion of vocational education named Basic Industrial Skills in academic schools

Living Skills a precursor of Basic Industrial Skills
Core Curriculum & Elective Subjects

Starting Point: Course of Studies for British Exams guided by Exam Syllabuses
Curriculum replaced Syllabuses in mid 1970

Core subjects remain stable
Increase in Elective Subjects
Same 4 TRACKS / streams at upper secondary

H owever, content of subjects has undergone internal change to keep up-to-date with emerging knowledge areas: e.g. GENERAL SCIENCE – NEW EMPHASIS ON ENVIRONMENT, RENEWABLE ENERGY & CONSERVATION; BIOLOGY – WIDENING SCOPE, e.g. GENETICS, TO INCLUDE HUMAN GENOME, GENETIC ENGINEERING & BIOTECH
CORE SUBJECTS
AT UPPER SECONDARY LEVEL

Core subjects remain stable

- MALAY
- ENGLISH
- ISLAMIC EDUCATION
- MORAL EDUCATION
- MATHEMATICS
- SCIENCE
- HISTORY
- PHYSICAL EDUCATION
- HEALTH EDUCATION
- CIVICS EDUCATION

A level of knowledge and competence, positive attitudes and values as a springboard to jobs and higher education
FOUR CURRICULUM TRACKS AT UPPER SECONDARY LEVEL

I. TRACK I. SCIENCE
- ADDITIONAL SCIENCE
- BIOLOGY
- PHYSICS
- CHEMISTRY

II. TRACK II. ARTS & LANGUAGE
- BASIC ECONOMICS
- PRINCIPLES OF ACCOUNT
- COMMERCE
- HOME SCIENCE
- INFORMATION TECHNOLOGY
- ARABIC
- ADVANCED ARABIC
- CHINESE
- TAMIL
- SCIENTIFIC ENGLISH

III. TRACK III. TECHNICAL & VOCATIONAL
- BASIC ACCOUNTING
- BASIC ECONOMICS
- COMMERCE
- AGRI SCIENCE
- MECH ENGINEERING
- CIVIL ENGINEERING
- TECHNICAL DRAWING
- ENGINEERING TECH
- HOME SCIENCE
- INVENTIONS, ETC.
- CONSTRUCTION INDUSTRY
- AGRICULTURE
- HOME ECONOMICS
- COMPUTER APPLICATIONS
- MANAGEMENT AND ENTREPRENEURSHIP

IV. TRACK IV. ISLAMIC STUDIES
- AL-QURAN & AS-SUNNAH STUDIES
- SYAR’IAH ISLAMIAH STUDIES
- ETC.
Response to New Demands

GLOBALISATION / K-ECONOMY

VOCATIONAL EDUCATION
DEMANDS

Globalisation
Labour for K-Economy

RENEWAL

1. Science and Mathematics in English
   - Knowledge Access
   - English - Global Communication

2. Expansion of Vocational Education
to broaden opportunities for slow learners
EXPANSION OF VOCATIONAL EDUCATION

EXPANSION OF VOCATIONAL EDUCATION: BASIC INDUSTRIAL SKILLS OFFERED IN ACADEMIC SCHOOLS

- Domestic Construction
- Furniture Making
- Signage
- Servicing Electrical Appliances
- Design & Tailoring
- Catering Service
- Landscape & Nursery
- Food Crop Cultivation

- Food Processing
- Aquaculture & Pets
- Multimedia Production
- Computer Graphics

- Domestic Plumbing
- Arc & Gas Welding
- Motorcycle Servicing
- Geriatrics Service

- Domestic Electrical Wiring
- Automobile Servicing
- Air Conditioning Servicing
- Facial & Hair Care
- Basic Interior Decoration
- Infant Care & Early Education

Modular, hands-on approach
Modular school-based assessment
Management and entrepreneurship important components
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Curriculum Renewal

NEW CURRICULUM AREAS

NEW CLASSROOM APPROACHES
New Trends Curriculum Renewal

Outcome of responsiveness to emerging new knowledge areas:

- **Curriculum expansion**
- **Curriculum diversity**
ICT Literacy

to develop ICT literacy among students and the ability to operate and use common applications

International Languages

for communicative purposes in global age and widen opportunities for higher education

Number of schools offering international languages limited but will be expanded as teacher supply improves

NEW SUBJECTS

The Foreign Languages Curriculum

- word processing
- database management systems
- graphics
- spreadsheet
- programming

- French
- German
- Japanese
NEW KNOWLEDGE AREAS

Renewable Energy and Energy Efficiency

HIV/AIDS and Sex Education

Environmental Education

Human Rights Education

Stronger Moral, Religious & Civics Education

International Education

New Emphasis on Agricultural Studies

Generic Skills / Core Competencies integrated Across the Curriculum

Learning How to Learn / Lifelong Learning

Curriculum Diversity
A Component within a subject

Integrated across subjects of the curriculum and taught when appropriate

Implemented as Co-Curricular Activities

Implemented as Out-of-School (field) Activity

HIV/AIDS Prevention
Environmental Education
Renewable Energy and Energy Efficiency
etc

Drugs Prevention
Study Skills – Learning How to Learn
etc

Science Projects
English Language Activities – Choral Reading, etc

Local Studies (History, Geography)
TIME ALLOCATION

Note! ADDED KNOWLEDGE AND SKILLS WITHIN SAME TIME ALLOCATION
NEW CLASSROOM APPROACHES

IMPLEMENTATION IN PROGRESS

**SCIENTIFIC INQUIRY TO ENCOURAGE R&D CULTURE AS PART OF NATIONAL CHARACTER**

- **Scientific inquiry leading to conclusions and discovery**

  **Laying Basis for Knowledge Work**
  - Exploration, Creativity and Innovation

  **Technology Creation in Malaysia**
  **Building a Class of Technocrats**

  **Combines Theoretical with the Practical**

**DESIRED COMPETENCIES** - thinking skills, knowledge application, exploration, inventiveness, competitiveness, entrepreneurship and risk-taking
NEW CLASSROOM APPROACHES

Experiential Learning
- Out-of-School Programmes
- Project Work

Differentiated Learning
- Smart school individualised self-directed learning culture *(late 90s)*
Use of ICT as a Teaching-Learning Tool

Science and Mathematics in English : 2003 - 2008

HARDWARE

Schools are provided with PC Notebooks, LCD, Trolleys, Screen and ICT Peripherals

COURSEWARE

Teaching courseware is produced (Private Sector collaboration) to help teachers deliver lessons in English effectively
There is a Special Education Department that deals with Remedial Programmes, Special Education and Education for Gifted Children.

**Voucher System**
Voucher system for extra coaching for weak students from poor families

**Exam Catch-up Classes**
Catch-up classes to prepare for standardised examinations is common practice and very effective. Sometimes also driven by local government.

**Special Education Department**
There is a Special Education Department that deals with Remedial Programmes, Special Education and Education for Gifted Children.

**Normal Remediation**
Special Education well developed for serious learning disabilities (e.g. Dyslexia, Attention Deficit,) but programmes for normal children who are slow learners are not that well developed

**Gifted Children Programmes**
Programmes for gifted children lacking
Points for Discussion

ISSUES AND CHALLENGES
CHALLENGES WITH REGARD TO EFFECTIVE IMPLEMENTATION

IS CURRICULUM RENEWAL DELIVERING RESULTS?

CHECK CURRICULUM & ORGANISATION

CHECK TEACHERS’ CAPACITY

CHECK DISSEMINATION SYSTEM (TRAINING)

CONTINUOUS MONITORING AND SUPPORT FOR EFFECTIVE IMPLEMENTATION OF REFORMS
Coping with curriculum load by restructuring content e.g. by integrating subjects within knowledge field

1 Integrating Subjects
e.g. social science, earth sciences, etc. has not caught on here

2 Integrating Areas Across the Curriculum
There is reason to believe that teachers do not implement areas across the curriculum rigorously enough

3 Time Allocation
Inclusion and organisation of new content within available school hours
RESEARCH & DEVELOPMENT

1. R&D TO INFORM CURRICULUM DEVELOPMENT
   Urgent need for research data and information specific to curriculum development needs for local situation: curriculum content, organisation & time allocation

   - CHECK CURRICULUM & ORGANISATION
   - CHECK TEACHERS’ CAPACITY
   - CHECK DISSEMINATION SYSTEM (TRAINING)

2. Problem of teacher quality
   R&D ON TEACHER QUALITY & EFFECTIVENESS OF TRAINING FOR DISSEMINATION
More concerted effort needed to develop Differentiated Programmes so that students’ employment and life opportunities are enhanced

Gifted children’s programme important to realise K-economy

TRY-OUTS of programmes for gifted children recommended
Move towards **School-Based Assessment** (SBA) introduced in 1980s with New Primary and Secondary Curriculum did not result in making school exams becoming less important.

**School Conditions** - not conducive to the close type of monitoring under SBA and teachers feel documentation tedious.

Employers and Higher Ed Institutions use National systems as indicators of student achievement and individual competence.

Lack of faith in validity of school-based assessment results.

**School-Based Assessment**

- **Fully** Vocational Subjects 100% School-Based Assessment managed by the Examinations Syndicate
- **Partially** Science Practical Exam Practical Exam for Islamic Religious Education
RESEARCH & DEVELOPMENT ON ASSESSMENT

Flexible Assessment Approaches to Expand Opportunities & Enhance Creativity

As pointed out by the World Bank, a more flexible, rational and equitable approach to exams and certification has to be developed (for Malaysia) that can accommodate constraints of current school conditions.

If the assessment system (e.g. SBA) places value on inquiry-discovery and creativity, these qualities will be effectively enhanced.

RECOMMENDED as an Area that the World Bank can look into
Promising Approaches

“Expanding Opportunities and Building Competencies for Young People:

MALAYSIAN GRID FOR LEARNING

PUBLIC-PRIVATE SECTOR PARTNERSHIPS
MyGfL: A one-stop education gateway for e-learning initiatives, intended to enhance the formal education process (teaching, learning and assessment) by:

- providing online educational resources (content, information, services and expertise) to teachers and pupils to use and share
- leveraging and integrating ICT tools available in schools and Teacher Training Colleges to enhance teaching-learning

www.mygfl.gov.my
TRE/VTC: Teaching-Learning Resources

Ready availability of a variety of materials allows teachers greater choice in differenting learning by developing different learning tracks for individual or groups of students.

MyGuru: Teachers’ network
Enhancement of teachers’ professionalism

MyTest: Assessment Materials
School based item banks to build & share quality assessment

MyGfL: An e-learning project that bridges the digital divide
- MyGuru: Helping to upgrade Teachers’ Professionalism
- Enables Individualised Instruction to enhance Learning
PUBLIC-PRIVATE SECTOR PARTNERSHIPS

Strategic Public / Private Partnerships
Scope: support educational initiatives / development with help from the private sector, e.g. privatisation

FORMAL /SCHOOLS
- e-learning initiatives, e.g. Mobile computer lab
- NIE/newspaper-in-education — New Straits Times
- Just English Magazine / Centres
- i-earn

NONFORMAL EDUCATION
Plan for online courses for the community

A mechanism needed at MOE level to drive Public/Private Sector Partnerships so as to tap into this potential
MALAYSIAN STUDENTS AS MEMBERS OF THE GLOBAL COMMUNITY

Greater emphasis on Civics Education and Education for International Understanding will bring Malaysian children closer to other children in the global community and enables them to be United in working towards Common Goals such as Preserving the Environment and World Peace

Thank You