ICT POLICY:
TRANSFORMATION OF EDUCATION
MALAYSIA

By:
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“The challenge of establishing a scientific and progressive society, a society that is innovative and forward looking, one that is not only a consumer of technology but also a contributor to the scientific and technological civilization”

Vision 2020 - a national vision of creating a developed nation in our own mould
To build a knowledge-based economy, school education has to be transformed with ICT as an enabler to access a much wider source of information, to increase innovation and creativity and to encourage critical thinking for problem solving.

Improving students’ outcomes and access to quality education
The Need to Enhance the Education System

Enrolment: primary school (95.88%), secondary school (89.81%)

Attainment: 92% adult literacy rate; Commonwealth Education Good Practice Award winner

20% students failed to meet the minimum TIMSS benchmark for Science and Mathematics in 2009

Ranked 52nd, 57th and 55th in PISA Science, Mathematics and Reading respectively in 2010

The MOE sets 5 focus areas to improve students’ outcomes:

- Pre-School
- LINUS
- New Deals
- High Performing School
- School Improvement Programme
ICT in Education Policy Framework

**ICT in Education Architecture**

- **Program Management Office**
  - Plan
  - Detailed Design
  - Implementation
  - Review

- **Technology**
  - Tools
  - Hardware
  - Connectivity

- **Human Capital**
  - Technology
  - Process
  - Human Capital

- **Process**
  - Curriculum
  - Pedagogy
  - Assessment

- **Community of Practice**
  - Teachers
  - Students
  - Administrators’ Competency

- **Public Private Partnership**
  - Outcomes
  - Improving students’ outcomes
  - Access to quality education

**Policy on ICT in Education**
Core Focus for Internal and External Stakeholders

**ICT** in **Education**

- Hardware
- Software
- Network
- Maintenance Service*
- Application*
- Data Center*
- Tools*
- LAN / WAN*
- Pedagogy
- Curriculum
- Assessment
- Competency Development
  - Training of MOE Officers #
  - Education Management #
  - Training of Teachers#

* Professionally-managed by MOE with inputs from external experts in ICT domain

# Driven by MOE but the integration of ICT in education competency development can also be delivered by external experts for value-add

Core Focus of MOE with COP’s input
Key Pillars of Delivery

HUMAN CAPITAL
- Roles & Responsibility
- Competency & Professional Development

BUDGET
- Budgetary Consideration
- Total Cost of Ownership
- Public-Private Partnership

INFRASTRUCTURE
- ICT Infrastructure
- Enabling Infrastructure
- Maintenance & Support Services

DIGITAL RESOURCES
- Teaching & Learning Strategy
- Teaching & Learning Materials
MONITORING MECHANISM

Program Management Office (PMO)

Specific Committees

Professional Program Management

Feedback on user requirements

Implementation of ICT initiatives in education institutions

Feedback on user requirements

EDUCATIONAL INSTITUTIONS

• Primary Schools
• Secondary Schools
• Vocational & Technical Schools
• Special Needs Schools

Performance level of ICT in Education deliveries

Vendors:
• Technology Vendors
• Infrastructure Vendors
• Maintenance Vendors
• Other Vendors

ROI

• Improving students’ Outcomes
• Access to Quality Education
Transformation towards e-Learning

1BestariNet

Technology
Applications

School connectivity
2 – 10 Mbps
Managed Hosting Services
Managed Security Services
Virtual Learning Environment

Teaching and Learning (T&L)
Virtual Learning Environment (VLE)
Administration & Management (A&M)

SCHOOL

HOME
Parents

SMS

T&L
DATA
A&M

MOE

State Edu Dept
District Edu Office
Summary

1. Existing ICT Initiatives
   - Smart Partnerships
   - Computer Labs
   - Teacher Training
   - School Access Center
   - 1BestariNet
   - VLE
   - EduwebTV
   - NextGen eContent

2. Enhancing existing transformative initiatives in GTP & ETP

3. ICT as an enabler
   Technology becomes integral part of nation’s learning process

Digital Age Models

Enhancing ICT at all levels

ICT as an enabler
Technology becomes integral part of nation’s learning process
Conclusion

- ICT plays an integral role in supporting the National Transformation Agenda and Vision 2020

- MOE plays a very important role in ensuring the proper seeding of ICT among students to guarantee the continuous supply of competent HR to sustain our vibrant Economy
CONCEPTUAL FRAMEWORK OF THE MOE ISP

MOE ICT MISSION & VISION

Improving Students Outcomes

CONTINUOUS IMPROVEMENT

Effective Communication Benchmarking Monitoring Commitment

ICT in T&L Infrastructure development ICT Competency Education Management System Educational Resources Sharing

INFORMATION MANAGEMENT

Dynamic Leadership Policy Consistency Innovative Culture Realistic Standards

ENVIRONMENT CAPACITY
IMPLEMENTATION PHASES

- Providing strong foundation relating to policies, infrastructure and management
  - Phase 1
    - 2011
    - (FOUNDATION)

- Integration of ICT to increase access and quality of the national education system
  - Phase 2
    - 2012 – 2013
    - (INTEGRATION)

- Sustaining ICT initiatives contributing to effectiveness of service delivery
  - Phase 3
    - 2014 – 2015
    - (STRATEGIC)
GTP Roadmap 2.0 will include two additional programmes on top of the enhancements to the current programmes:

- Pre-School
- LINUS
- School Improvement Program
- New Deals
- High Performing School
- Teacher Charter
- English Proficiency

GTP Roadmap 2.0 programmes are anchored on three aspirations identified for the Malaysian education system:

1. **Access**
   - 100% universal enrolment
   - In 10 years

2. **Quality**
   - Top 3 in PISA, TIMSS
   - In 15 years
   - At international average in international achievements (PISA, TIMSS)

3. **Equity**
   - Reduction in achievement gaps
   - In 10 years
   - 25% reduction in urban-rural achievement gaps across Malaysia
Challenges: ICT to play an important role in education

- Ensuring ICT infrastructure keeps abreast with the latest technological development
- Ensuring that internet connectivity is accessible to all schools
- Educational resources must be made readily available to teachers and students, and ubiquitous and lifelong learning be enhanced within and outside school
- Skills upgrading must be a continuous process
- Benchmarking with international norms and practices are imperative to leapfrog Malaysia's ICT development