THE MALAYSIAN SMART SCHOOLS: DEVELOPING 21ST CENTURY SKILLS
“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
TRANSFORMING CURRICULUM FOR THE 21ST CENTURY

“We are examining our education system to create a curriculum where people learn how to learn so they can continue their education throughout the rest of their lives. The measure of success in 2020 will be the number and quality of our people who can add value to information.”

Tun Dr. Mahathir Mohamad
MSC Malaysia Launch, 1st Ogos 1996
THE BEGINNING
- THE SMART SCHOOL -
THE WORLD HAS CHANGED...

“\textit{In today’s economy, the most important resource is no longer labour, capital or land; it is knowledge.}”

– Peter Drucker
MSC MALAYSIA FLAGSHIP APPLICATIONS

SMART SCHOOL

MULTI-PURPOSE CARD

TELE-HEALTH

ELECTRONIC GOVERNMENT

TECHNOPRENEUR DEVELOPMENT

R&D CLUSTERS

ELECTRONIC TRANSACTIONS

Developing Human Capital

Bridging Digital Gap

Nurturing Development of Local Multimedia SMEs
THE SMART SCHOOL

... a learning institution that has been SYSTEMICALLY reinvented in terms of teaching-learning practices and school management in order to prepare children for the Information Age.
IMPLEMENTATION WAVES

Wave 1
88 school nationwide selected

Wave 2
Massive computerization phase to all 10,000 schools

Wave 3
Making All Schools Smart (2005 - 2010)
Leveraging all ICT initiatives

Wave 4
Consolidate & Stabilize (2010 – 2020)
Innovative practices using ICT enculturated
SMART SCHOOL PILOT PROJECT

Pilot Project of 88 Smart Schools ends in December, 2002
(Level A : 6 schools, Level B+ : 2 schools, Level B : 80 schools)

A Smart School Management System with 9 modules for major school functions

Teachers and principles trained in use of Smart school applications

ICT Infrastructure & systems as an enabler for quality teaching & learning

Data Centre

Help Desk

Call Centre

T& L Content for 4 core subjects Malay Language, English Language, Science & Mathematics. Courseware for individualised learning for advanced students, teachers facilitate the average and below average students
MOVING FORWARD: MAKING ALL SCHOOLS SMART
Making All Schools Smart is a continuous process to acculturate the use of technology in education to ensure quality teaching & learning, effectiveness of school administration and management and teachers’ ICT competency.
PRIMARY OBJECTIVES

Primary Objectives

1. To produce a knowledge society that is critical, creative and innovative
2. To produce technology savvy individuals for the Information Age
3. To bridge the digital divide
4. To cultivate life-long learning based on ICT

Making All Schools Smart
THE SMART SCHOOL
TOWARDS HUMAN CAPITAL DEVELOPMENT

A dynamic workforce for the industry

Increase in no of ICT literate students, teachers and parents; increase in usage and adoption of ICT facilities

Society of Inventors

Utusan Malaysia
Sekolah Bestari rapatkan jurang digital

Penyebar Fikiran Rakyat
SMART SCHOOLS DEVELOPING 21st CENTURY SKILLS

• Technology and Media Literacy
• Learning & Innovation Skills
  • Creativity & Innovation
  • Critical thinking & Problem solving
  • Communication & Collaboration
• Life and Career Skills
CHARACTERISTICS OF A SMART SCHOOL

Student-centred teaching & learning
Catering to different learning styles

Students exhibit Higher-Order Thinking Skills
Self-paced
Self-accessed
Self-directed

Teachers, and Administrators skillful in using ICT in daily tasks

Creative and innovative teachers using ICT as enabler and accelerator for better teaching and learning

Smart partnerships with various agencies
THE SMART SCHOOL STUDENTS

Smart Schools nurture a new generation of thinkers who are equipped with the relevant knowledge and skills to innovate and compete in an increasingly complex world.
CATERING TO THE INDIVIDUAL STUDENT

ICT as an enabler in T&L
CREATIVE APPROACHES IN T&L
COMBINING THE TRADITIONAL AND NEW TECHNOLOGY IN TEACHING & LEARNING
COMPUTER LABS TO INCREASE ICT UTILIZATION
SCHOOL ACCESS CENTRES PROVIDE ADDITIONAL CONTACT TIME WITH THE INTERNET
USE OF COURSEWARES FOR SELF-PACED, SELF ACCESSED, SELF DIRECTED LEARNING

- Mathematics
  - Money Up To RM10,000
  - Mass
  - Time

- Science
  - Metacognition Melody

- Mathematics
  - Trans-Miera Model

- Kajian Tempatan
  - Identiti Setempat (Kreativit Guru)
CREATIVITY AND INNOVATION IN ACTION

DIGITAL STORY TELLING (ANIMATION) WORKSHOPS

ANIMATION BY
SK KEM TENTERA SABAH
(A RURAL SCHOOL)

The Star Newspaper; 17th August 2010
SMART PARTNERSHIPS
LOCALLY AND GLOBALLY

School Linkages –
Sister School

Support from PTA

School Adoption
Programme with Industry
QUALITY ASSURANCE
THE MONITORING TOOL: SMART SCHOOL QUALIFICATION STANDARDS (SSQS)

The SSQS is a monitoring tool to measure and increase the utilization of ICT in schools.
SSQS STAR RATINGS

ADVANCED PLUS (5*)
Highest approval ranking; Smart Schools with advanced conditions for most indicators

ADVANCED (4*)
Smart Schools with good or advanced conditions for most indicators

MEDIAN (3*)
Smart Schools with fair or average conditions of all indicators

BASIC PLUS (2*)
Schools with below average conditions for all indicators

BASIC (1*)
Schools with merely basic conditions across all indicators
SSQS 2009

- 8454 SCHOOLS RATED
- 7575 ACHIEVED MINIMUM OF 3 STAR RATING

<table>
<thead>
<tr>
<th>RANKINGS</th>
<th>NO OF SCHOOLS</th>
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<tbody>
<tr>
<td>5 Star</td>
<td>96</td>
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<tr>
<td>4 Star</td>
<td>2412</td>
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<tr>
<td>3 Star</td>
<td>5067</td>
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<tr>
<td>2 Star</td>
<td>662</td>
</tr>
<tr>
<td>1 Star</td>
<td>217</td>
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</table>

Total 5 Star: 96
Total 4 Star: 2412
Total 3 Star: 5067
Total 2 Star: 662
Total 1 Star: 217
SSQS 2009 STAR RATING
THE RURAL SMART SCHOOLS

SSQS 2008
- Advanced Plus (5)
- Advanced (4)
- Median (3)
- Basic Plus (2)
- 8

SSQS 2009
- Advanced Plus (5)
- Advanced (4)
- Median (3)
- 13

SSQS 2008
- Advanced Plus (5)
- Advanced (4)
- Median (3)
- Basic Plus (2)
- 8

SSQS 2009
- Advanced Plus (5)
- Advanced (4)
- Median (3)
- 13
THE FUTURE
Making a transformative shift to build national competitiveness and change the nation’s socioeconomic landscape

Tangible Outcomes

3rd National Key Result Area
Improving student outcomes and access to quality education

ICT IN EDUCATION

Outcomes

21st Century Skills

Problem Solving
Creative Thinking
Effective Communication
Collaboration
Technology & Media Literacy

Maximizing impact of ICT to accelerate improving student outcomes

‘Our approach is two-pronged, that is, we must be big and we must be bold – the Two Bs. If we do this incrementally, it wouldn’t be big and bold’
Continuous monitoring and coaching of innovative use of technology in schools

- Upgrading of infrastructure such as the broadband and hardware
- Instilling the ownership of the Smart School initiatives among stakeholders
- Changing the mindset of teachers and stakeholders
- Alignment of objectives at all levels required, within the Ministry and between Ministries/agencies

CHALLENGES
LOOKING BACK, MOVING FORWARD

Transform Malaysia into a knowledge society, towards high income economy

Launch of MSC Ph. 1 (1996)
Pilot Project 88 Smart Schools

Post-Pilot (2002)
Enhancement of 88 Smart Schools

Making All Schools Smart (2005)
Leveraging ICT Initiatives in 10,000 Schools

Making All Schools Smart (2009)
Catalysts in Clusters (2010)
500 Schools

Driving Transformation Sustainability (2011)

500 Schools Making All Schools Smart (2005)
Leveraging ICT Initiatives in 10,000 Schools

Catalysts in Clusters (2010)
500 Schools

Driving Transformation Sustainability (2011)

Leapfrog into High Income Economy (2020)

High Value

Creativity

Innovation

10th MP
THANK YOU

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