



OPTIMIZING DIGITAL CONTENT IN CLASSROOMS: THE MALAYSIAN SMART SCHOOL EXPERIENCE

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By:

Dr. Norrizan Razali
Senior Manager

Smart School Department

Multimedia Development Corporation Sdn Bhd (*MDeC*)

AGENDA

- **MSC Flagship Applications**
- **Programmes for 88 Smart Schools**
- **Challenges with Digital Content**
- **Strategies**
- **Recommendations**

Leapfrogging Malaysia into the Information Age

Accelerate growth of MSC as a Global ICT Hub and thus bring in **Foreign Investments**



Roll out of the MSC to the rest of the country to enhance and **develop the local ICT industry**



Contribute to the socio-economic development through the MSC flagship applications



Extending the MSC benefits to the **WIDER COMMUNITY**

MSC Flagship Applications



SMARTCARD



ELECTRONIC GOVERNMENT



TECHNOPRENEUR DEVELOPMENT



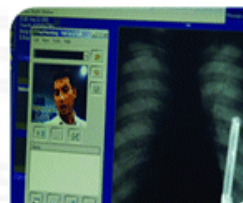
SMARTSCHOOL



E-BUSINESS



R&D CLUSTER



TELEHEALTH

Smart School Flagship : Pilot

The Smart School Pilot Project completed on December, 2002 (Level A : 6 schools, Level B+ : 2 schools, Level B : 80 schools)



Malaysian Government
(Ministry of Education)

+

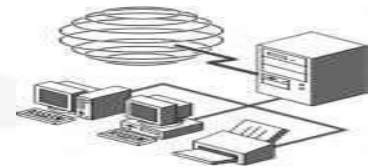


MDeC



Teachers and principles
trained in use of Smart
school applications

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



ICT infrastructure and
system in 88 schools

1494 courseware titles for 4 subjects
(Bahasa Melayu, Mathematics,
Science and English) various printed
materials

Support Services
- HelpDesk



A Data Centre

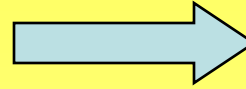
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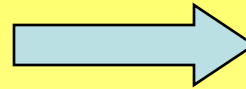
Programmes for 88 Smart Schools



- **Monitoring**



On-Line



On-Site

Monitoring Tools:

- *Smart School Qualification Standards (SSQS)*
- *Star Ranking*
- *Training / Professional Development*

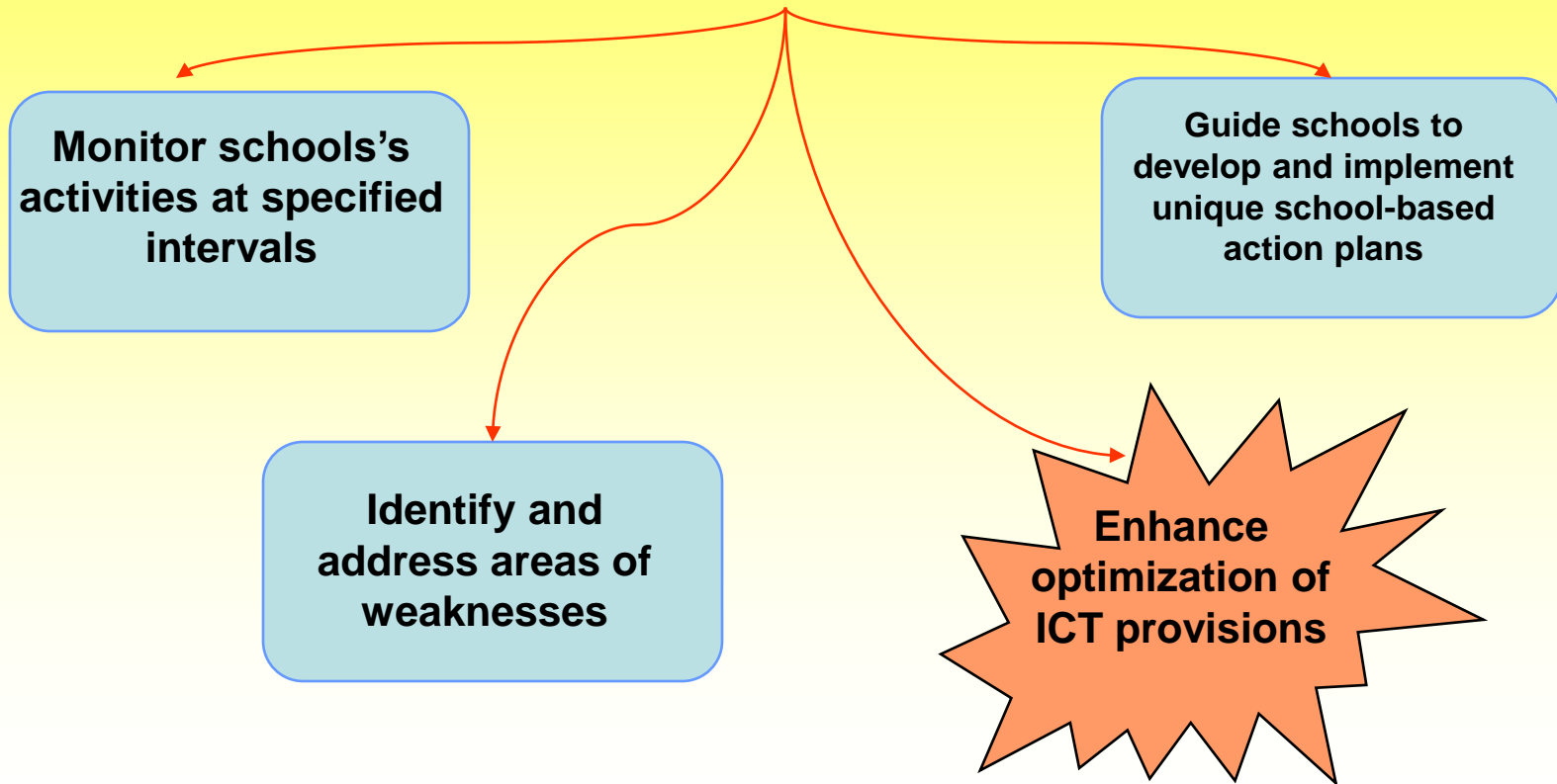
- **Enhancement of Technical Support**



- **Programme Management for the Development and Deployment of Enhanced Applications**

On-Site Monitoring Programmes

ENSURING CONTENT OPTIMIZATION IN CLASSROOMS



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Challenges with Digital Content

Some Global Perspectives

✓ Despite teachers...having positive visions about the Internet ...its potential as an innovative tool for learning was, to a great degree, unrealised. - Sven B.

Andersson, Sweden

✓ The problem is not technology but...human resource. The problem is that not all teachers are open to the idea of using the courseware, despite the fact that they know that it is the web-counterpart of the book.

...they (teachers) observed that the students participated more in class, had lesser failures and became more enthusiastic in using the material the teachers had developed. - C. J. F. Orgate et. al, Philippines

Source: British Journal of Educational Technology, Vol. 37, No. 5, 2006

✓ The British Educational Technology Agency (BECTA) study (2007) shows that utilization of ICT is at 15% for the school sector in the UK.

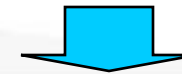
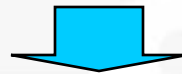
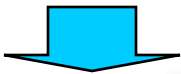
Challenges with Digital Content

Deriving from various studies i.e. Impact Study (2005), Roadmap (2005) and Evaluation of MOE's Courseware (2006), most teachers are not ready to optimize digital content (pre-packaged content/courseware) in classrooms

Continuum of integrating digital content in Teaching & Learning

Teachers use digital content in T&L

Teachers integrate digital content in T&L



Adopt

Adapt

Innovate

OPTIMIZATION

Majority of teachers are in *adopt* stage

Very few teachers are able to innovate the digital content for T&L

Teachers are expected to use the digital content in schools

Majority of teachers adopt the usage of digital content in T&L, however, few are able to adapt & inovate

Teachers face difficulties in integrating digital content in teaching

Teachers need skills to integrate digital content in teaching and learning

Challenges with Digital Content

Users' Perspectives



- ✓ Pedagogical aspect in digital content encourage teachers to *adopt* only
- ✓ Teachers and students find cosmetic aspect attractive
- ✓ Curriculum-based and exam driven
- ✓ Technical challenges

Spearheading Transformation

Challenges with Digital Content

Although cosmetic aspect is attractive, teachers are not compelled to use the digital content

BECAUSE

External Constraints

- ✓ Not aligned with assessment approach
- ✓ Infrastructure challenges
- ✓ Academic performance orientation

Digital Content Constraints

- ✓ Linear and textbook orientation
- ✓ Design does not encourage personalized content for teachers' own lesson plans
- ✓ Teachers and learners have little control or ownership

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MOE and MDeC's Current Strategies

- ❖ Integrating digital content in Teaching and Learning
 - ❖ Increase ICT integration for teaching and learning Training Programmes (in-service - localized)
 - ❖ Enhance Teacher Training Curriculum (pre-service)

- ❖ Management and implementation of digital content
 - ❖ On-site monitoring
 - ❖ Educational technology management
 - ❖ Change Management
 - ❖ Professional Development Programmes (localized and centralized)

- ❖ Enhancement of current digital content

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Recommendations

- **Policy**
 - To develop an enculturation policy of optimizing ICT utilization in schools
- **Content Development**
 - To consider an alternative to the pre-packaged digital content
- **Training**
 - To focus on skills for integrating digital content in lessons
- **Monitoring**
 - To conduct monitoring at school level continuously and systematically

Thank You

MSC

MALAYSIA

Spearheading Transformation