BAKTI-MINDS CONFERENCE 2014
22 – 24 October, 2014

Ministry of Education Plans
For
Expanding Inclusive Education In Malaysia

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Objectives

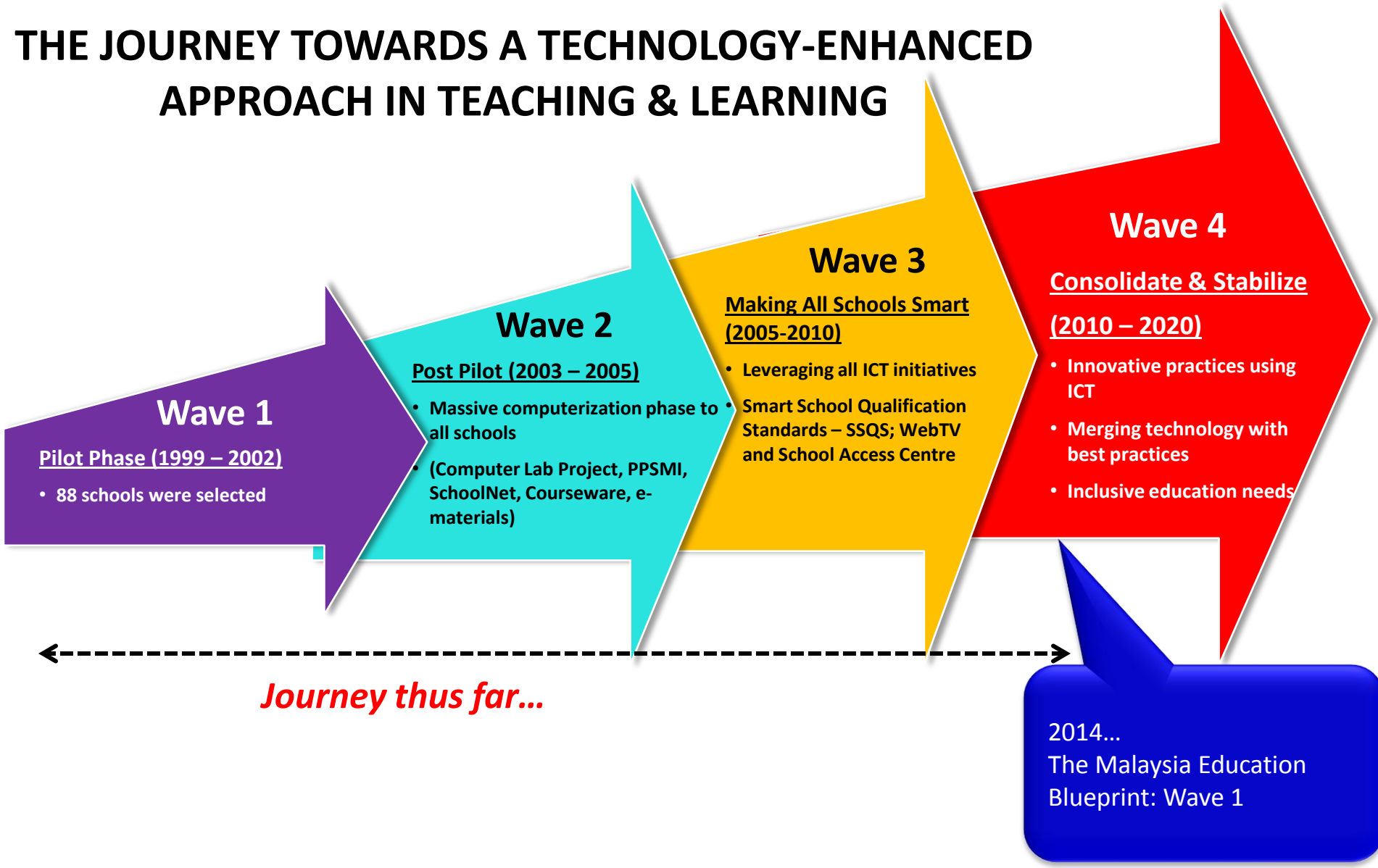
Provide an overview of key best practices on inclusive education via educational technology programmes which have contributed to learning, teaching and administration in Malaysia

Discuss critical success factors on the key best practices on inclusive education

Presentation Outline

1. Journey towards a technology-enhanced approach in teaching and learning
2. Current Education Transformation in Malaysia
3. The 1BestariNet Initiative
4. Role of instructional resources in inclusive education
5. Moving Forward
6. Conclusion

THE JOURNEY TOWARDS A TECHNOLOGY-ENHANCED APPROACH IN TEACHING & LEARNING



Why is there a need for a technology-based approach in inclusive education?

Technology-based delivery system enhances greater learning experience among special children

MOE's "No child left behind policy" – Education Blueprint, 2013 - 2025

Incorporation of virtual learning – bridging the digital divide between normal and special children in schools

Development of 21st century skills requires technology as an enabler for effective instruction via an integrated approach

TECHNOLOGY PERSPECTIVES UNDER MOE INITIATIVES
WAVE 1 (2013 – 2015): ENHANCING THE FOUNDATION

Providing network infrastructure and a learning platform through1BestariNet

- All teachers trained and competent in VLE by 2015

Delivering more ICT devices

- Devices must be "fit for purpose"

Ensuring all teachers and MOE officials are ICT literate – International Society for Technology in Education (ISTE) standards – pass diagnostic test by 2014 – if failed then online training by 2015

Shifting towards more user-created content – EduWebTV migrated to VLE – integrated platform – e-Guru video library

Integrated data management for schools (SPS) and MOE – integrate databases hosted on 1Bestarinet

WAVE 2 (2015 – 2020): INTRODUCING ICT INNOVATIONS

Exploring ICT solutions for specific groups, reviewing best practices for the sytem

- Introduce niche programmes in under-enrolled schools, rural schools, gifted students

- Use virtual delivery, adaptive learning tools, parental and community engagement

Achieving a critical mass in ICT devices gradually

- Lower student-computer ratio to 10:1

WAVE 3 (2021 – 2025): MAINTAINING INNOVATIVE, SYSTEM-WIDE USAGE

ICT to be fully embedded in pedagogy and curriculum

Up-scaling and intensifying ICT usage among students and teachers

- Device to student ratio comparable to South Korea

Expand distance and self-paced learning

Special Education in Malaysia Education Blueprint, 2013 - 2025

- Preamble

  "The Ministry will ensure that students with specific needs, such as students with special needs, indigenous and other minority students like *Orang Asli* and Penan, gifted students and students in under-enrolled schools have the opportunity to get a high quality education that is relevant to their needs."

  – Students with visual impairment, hearing impairment, speech difficulties, physical disabilities, multiple disabilities and learning disabilities such as autism, Down's Syndrome, attention deficit hyperactivity disorder, and dyslexia

  – To be successful, there is a need for stakeholder-driven approach.

The 1BestariNet Inisiative: Bridging the Digital Divide

1BestariNet

Objectives

- Deploy and support broadband internet connectivity to all schools
- Deploy and support the Virtual Learning Environment (VLE) to all students, teachers, school administrators and parents
- Provide hosting and managed security services
- Implement change mangement and VLE training

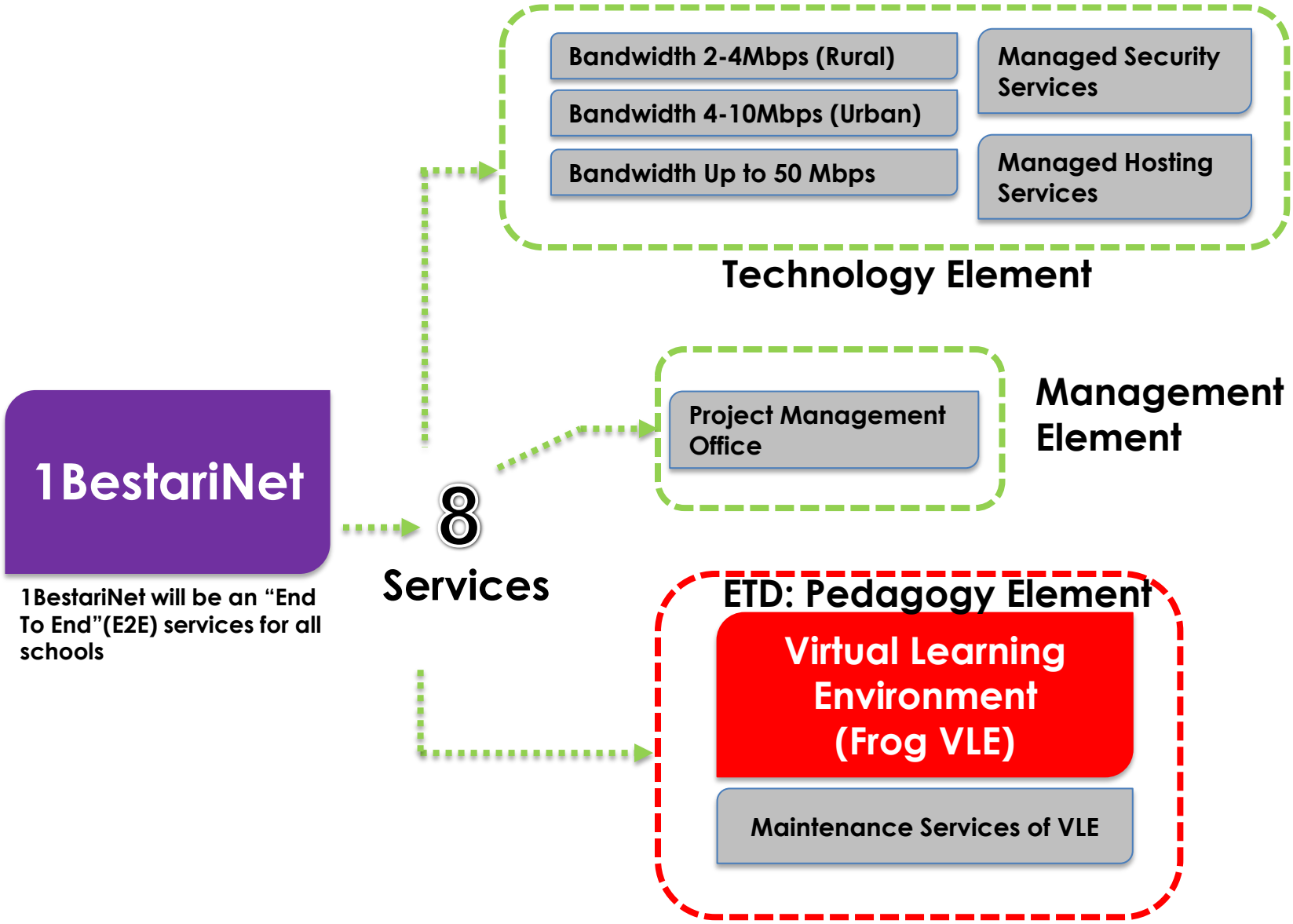
Critical Success Factors

- Sufficient and functional ICT infrastructure
- User-friendly applications
- Suitable resources for instructional purposes

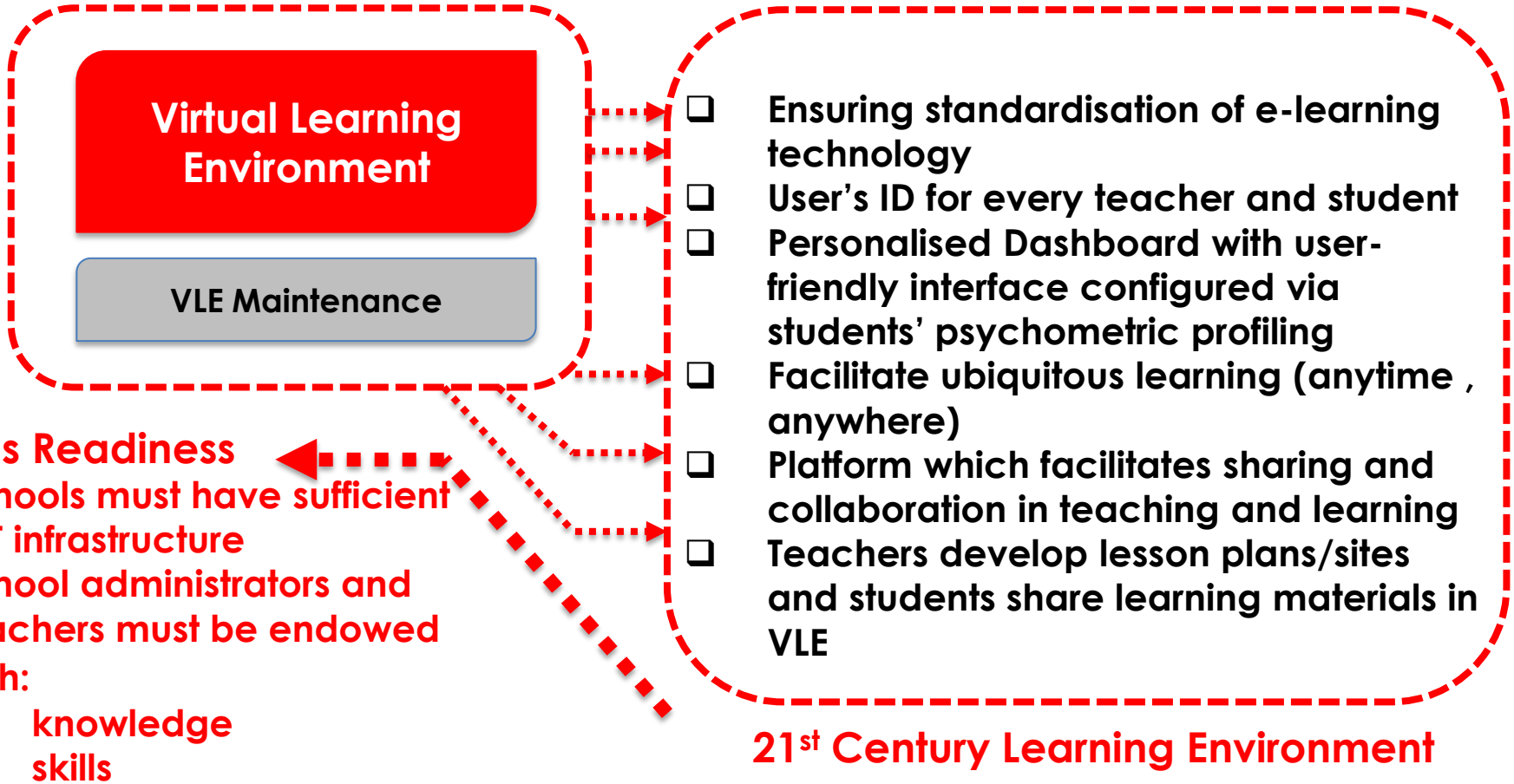
- Good broadband internet connectivity leading to effective instruction

Technolgy-enhanced teaching and learning

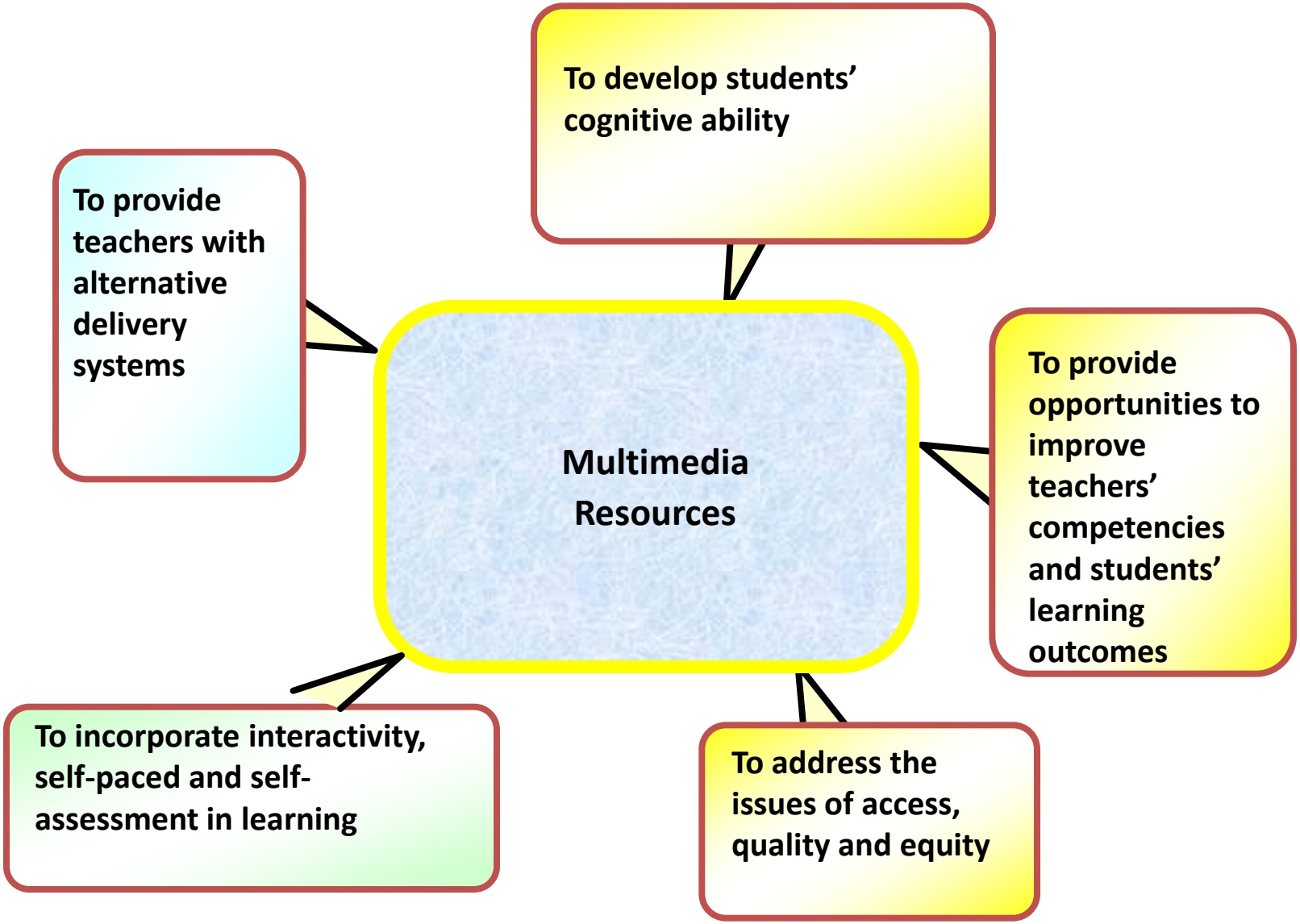
1BestariNet



The Virtual Learning Environment



Role of Instructional Resources in Inclusive Education

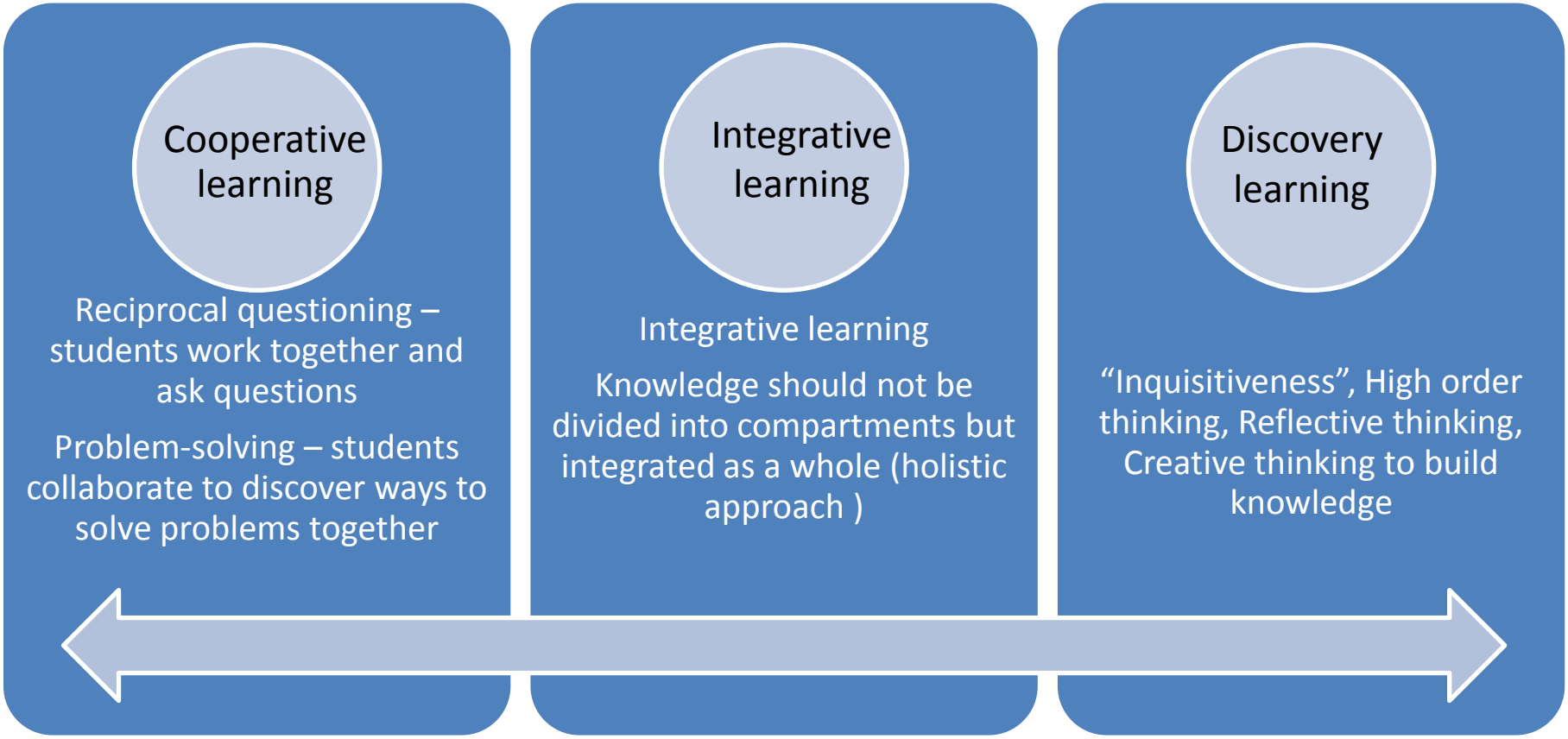


Constructivist Approach in Inclusive Education

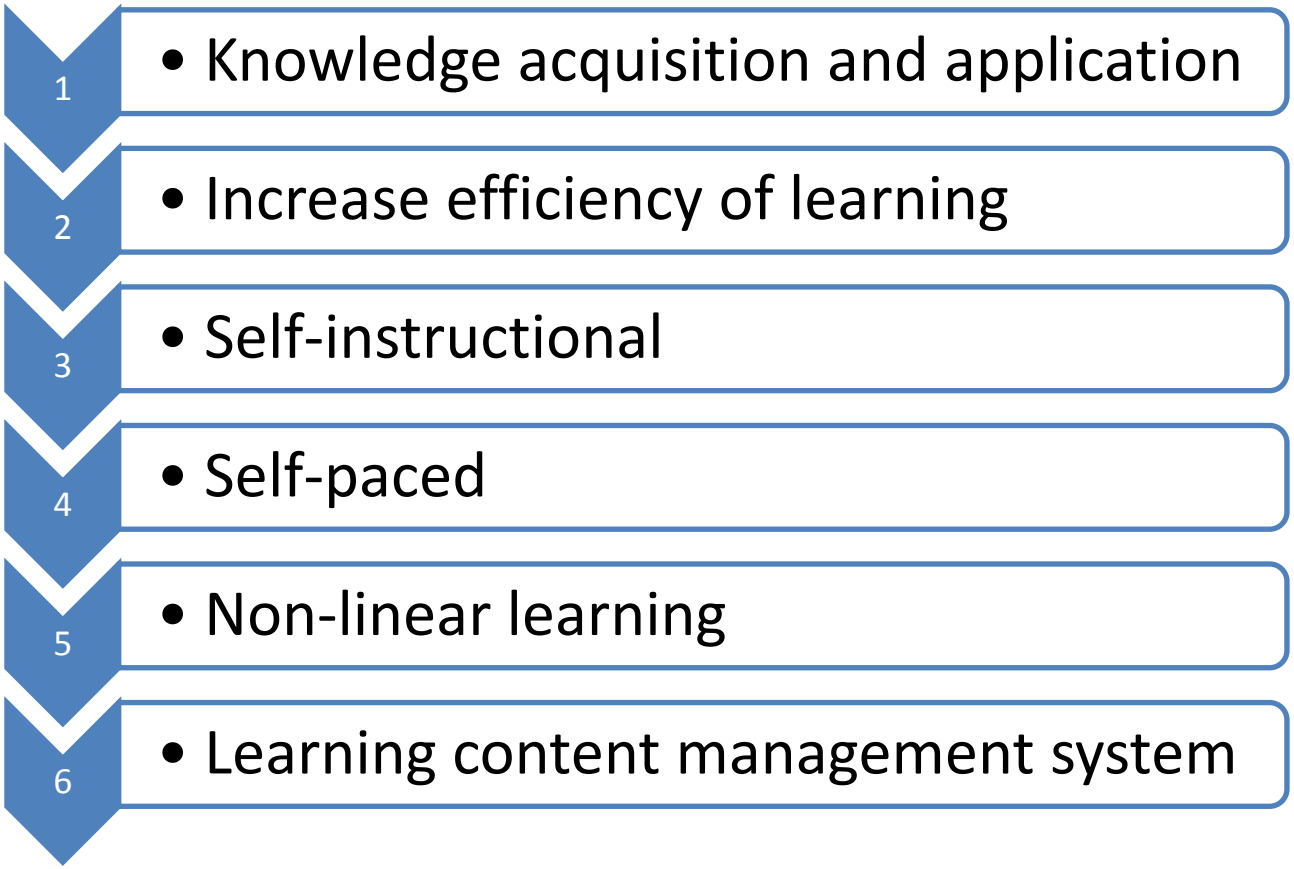
The constructivist approach is a learning process which allows a student to construct knowledge through the learning environment.

The learning environment supports and challenges the learner's pace of learning – supporting the learner to become an effective thinker.

Constructivist Approach in Inclusive Education



Effective Multimedia Courseware for Children with Hearing Impairment and Remedial Education



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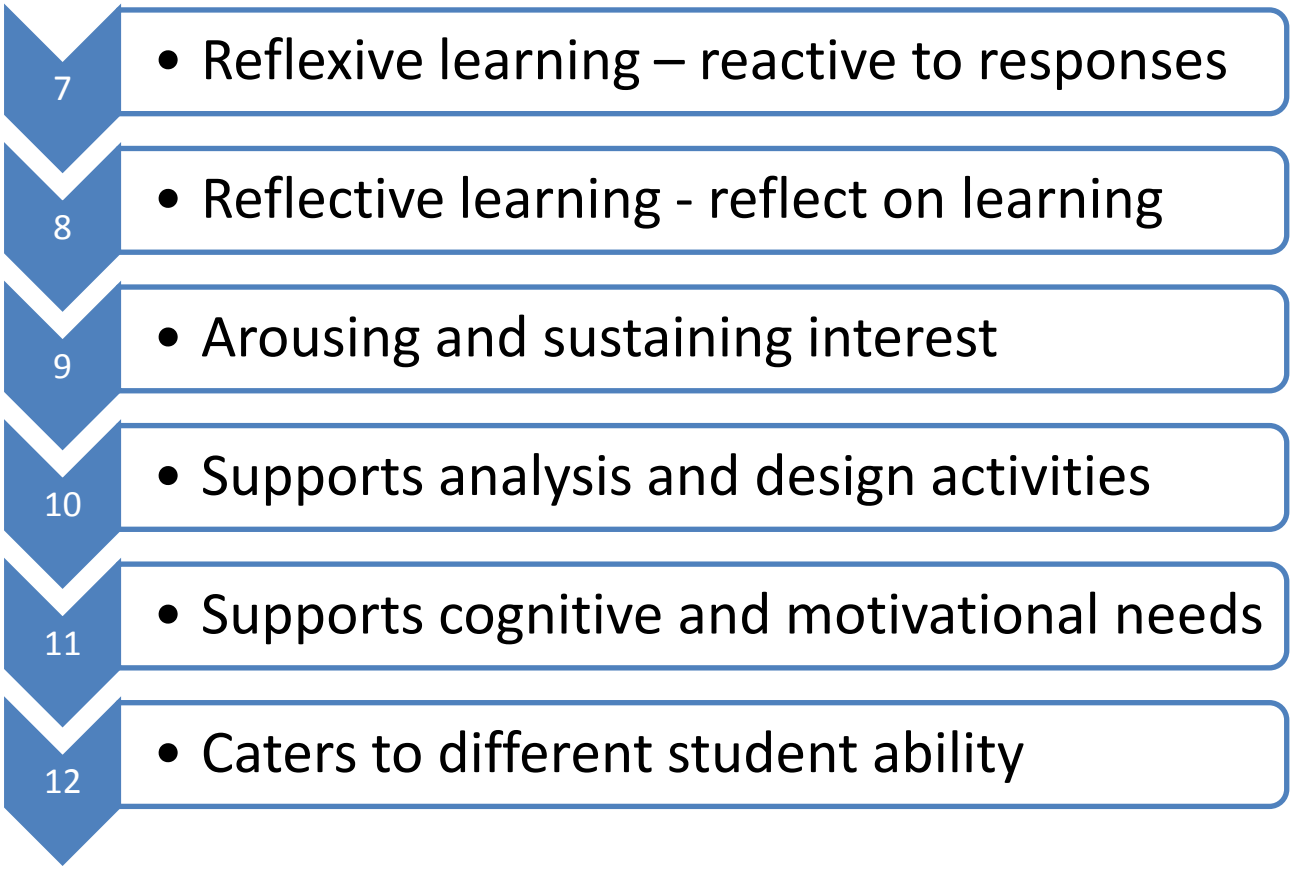

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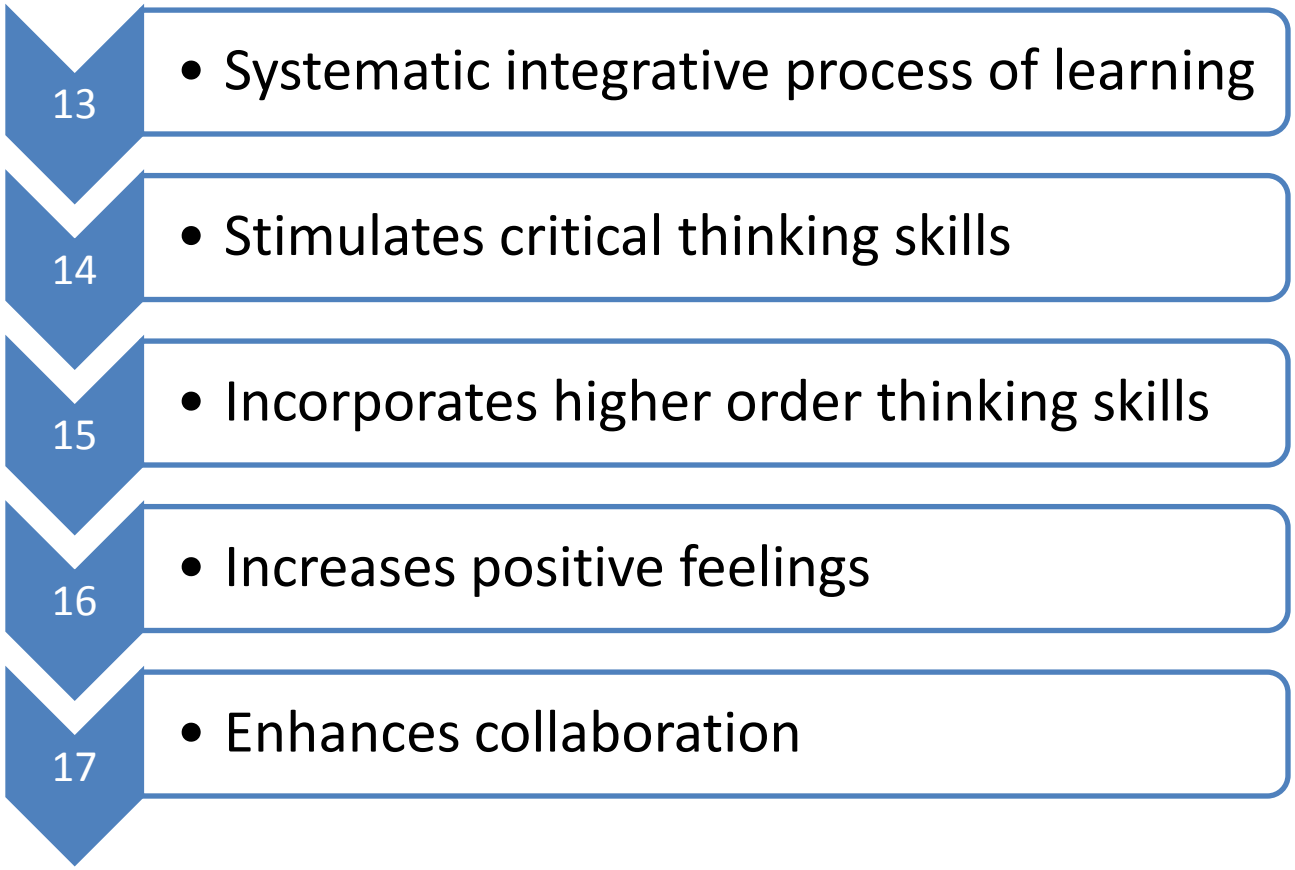


Characteristics of MOE Courseware

Used in primary schools to improve pupils learning outcomes

Can be Used in compter labs

Structured levels of instruction

Incorporates learning and entertainment

Easy-to-use graphical user interface

Monitor and evaluate student's progress

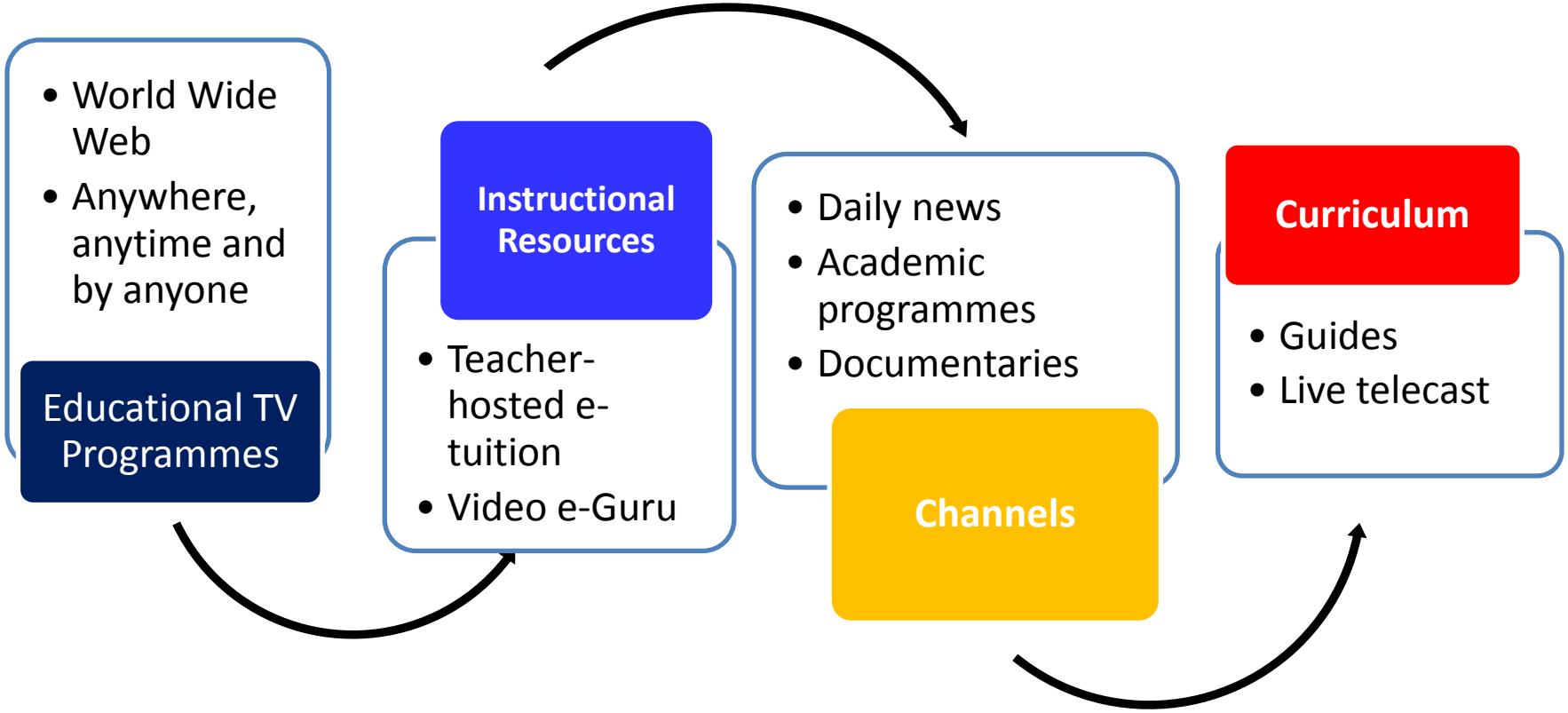
Examples of School Multimedia Resources for Inclusive Education

- Disk1: Pendidikan Khas; Masalah Pendengaran; Bahasa Malaysia; Huruf A – Z
- Disk2: Pendidikan Khas; Masalah Pendengaran; Bahasa Malaysia; Nombor 1 – 20
- Disk3: Pendidikan Khas; Masalah Pendengaran; Bahasa Malaysia; Warna
- Disk4: Pendidikan Khas; Masalah Pendengaran; Bahasa Malaysia; Buah-Buahan
- Disk5: Pendidikan Khas; Masalah Pembelajaran Bahasa Malaysia; Cerita dan Lagu
- Disk6: Pendidikan Khas Disleksia; Bahasa Malaysia

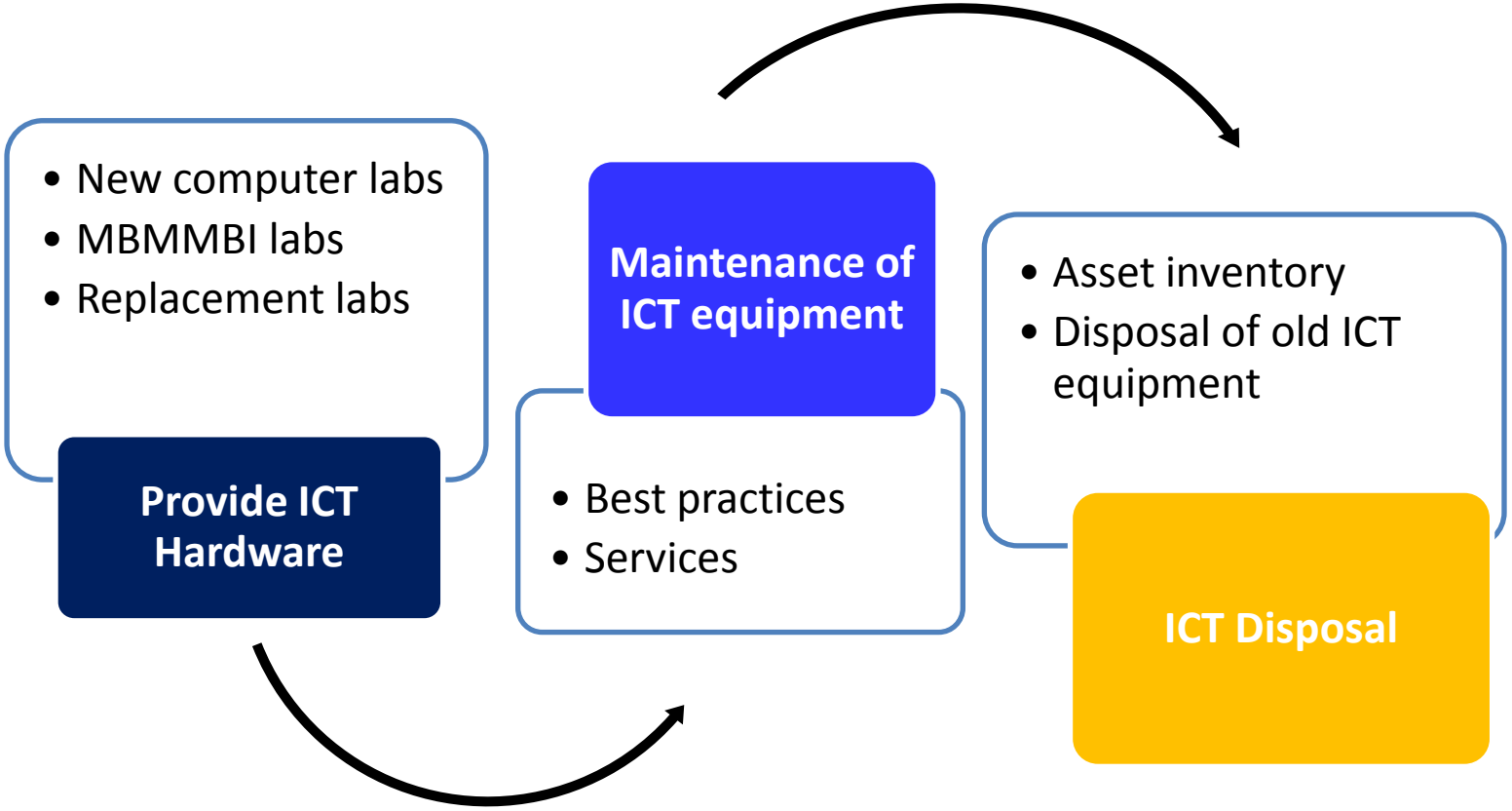
School Multimedia Resources for Inclusive Education

Other Support Programmes

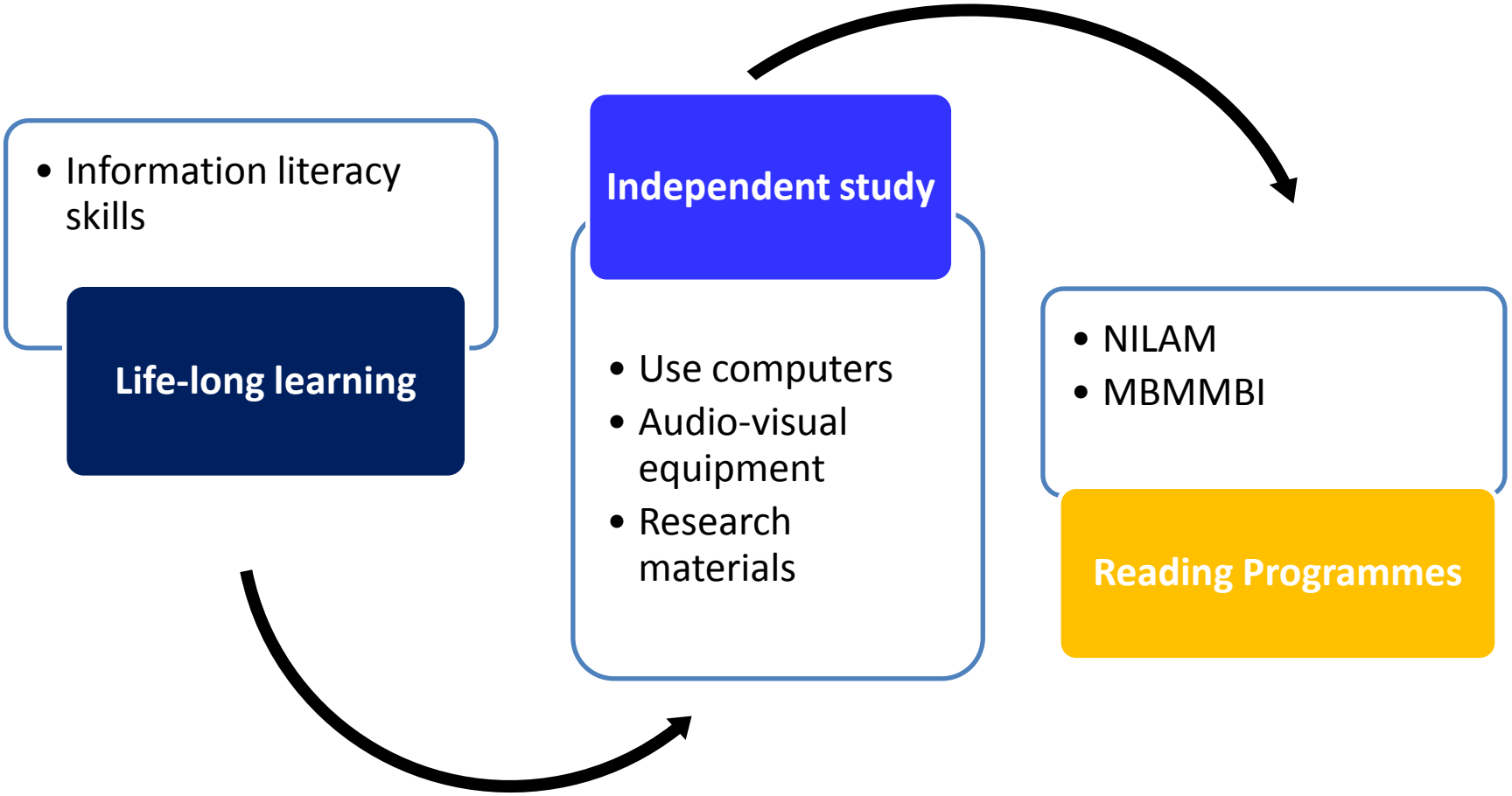
EduwebTV (www.eduwebtv.com)



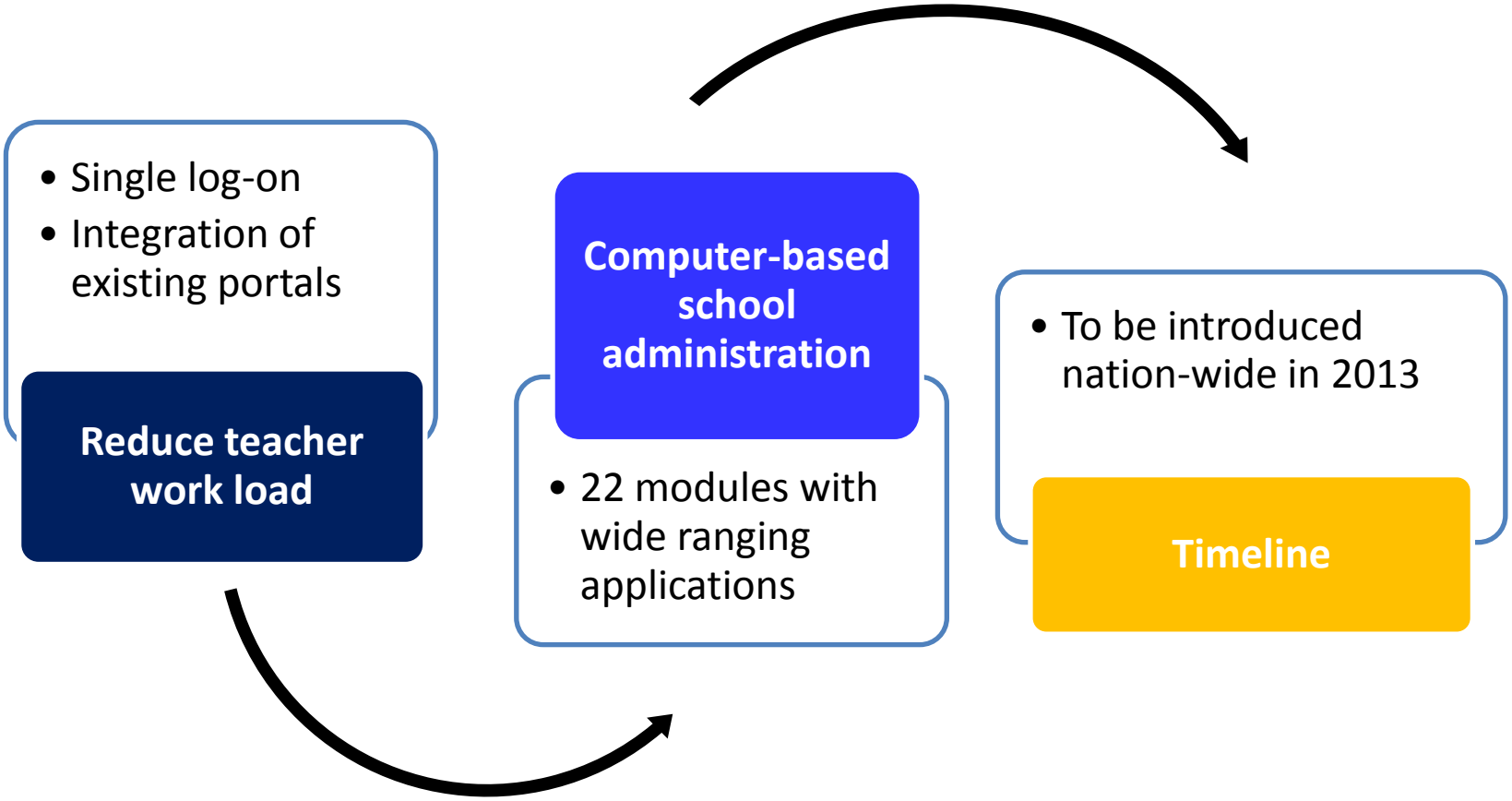
ICT Support for Schools



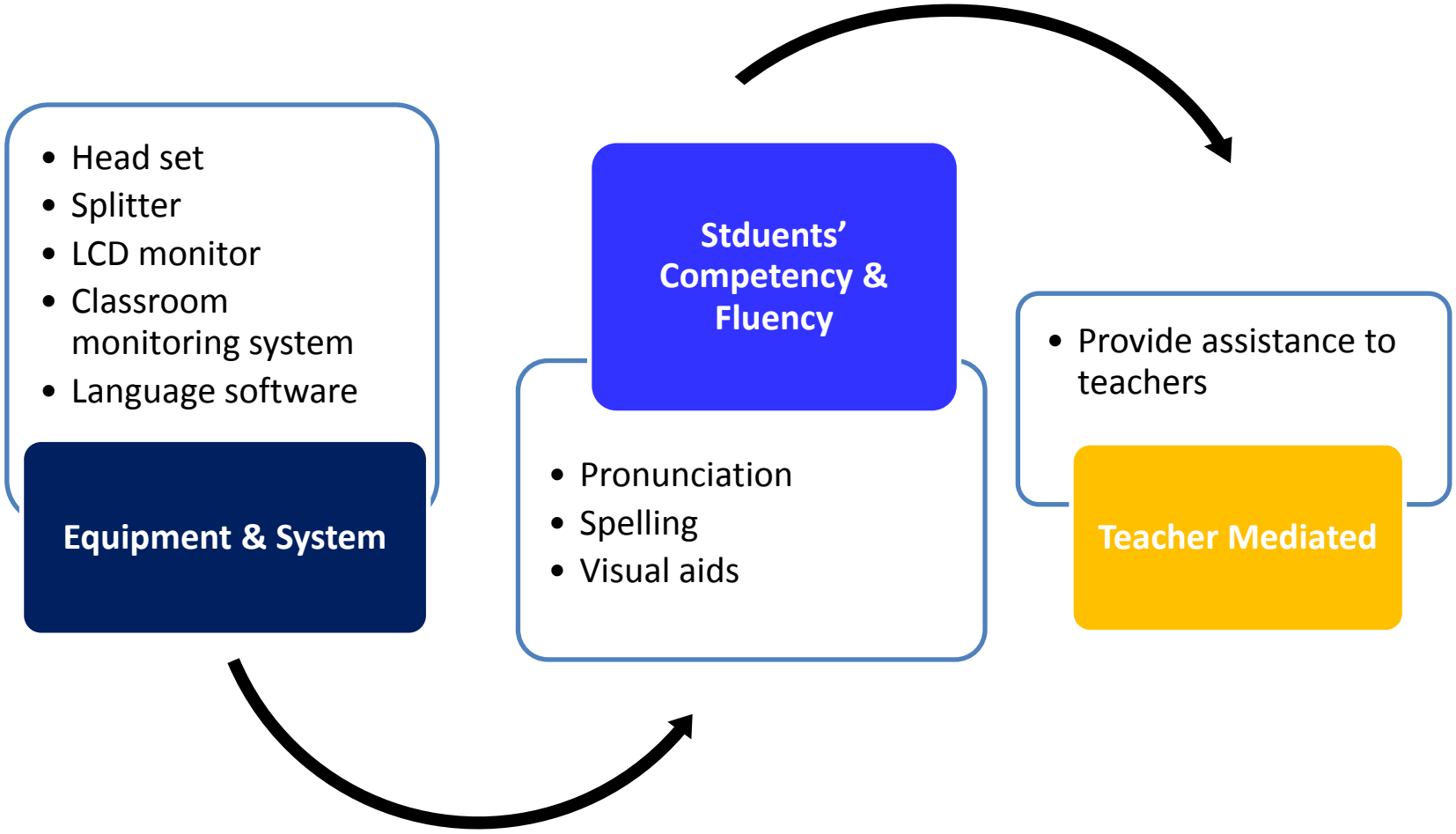
School Resource Centres



School Management System (SPS)



Language Labs



Moving Forward

- Sustainance of procurement will be dependent upon allocation of financial resources in annual budget.
- Emphasis on MBMMBI (BM & English) programmes
- PADU Initiatives
  - 1BestariNet
    - Extension of initiative beyond 2014
    - Connectivity and VLE
  - Video e-Guru
    - Production of 100 videos in addition to 50 already produced
    - YouTube
  - Use of radio under Distance Education for Underenrolled Schools

Moving Forward

- Use of radio under Distance Education for Underenrolled Schools
  - Underenrolled schools in rural and interior schools
  - Issue of access and equity – PPPM 2013 – 2025 aspiration
  - Special education needs for under-priviledged children in isolated areas
    - Visually impaired
    - Sound generation via digital textbooks
  - Use of radio as a “feasible” alternative
    - Accesible via VLE or radio
    - Downloadable from the Cloud
    - Self-paced instruction/self-access learning

Moving Forward

- Use of radio under Distance Education for Underenrolled Schools
  - Collaboration with:
    - Special Education Division, Ministry of Education
    - Malaysian Associaton for the Blind
    - Textbook Division, MOE
  - User-friendly Interface
    - Materials with voice activation to help visually impaired students
    - Interacitivity via keyboard
    - Voice-activated digital textbooks with collaboration from Textbook Division

Moving Forward

- School Management System
  - Education Management Information System (EMIS)
  - Students' Online Application
  - Student Affairs Management

Thank You

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