Drawing on the expertise of partnering institutions to promote IBSME as a common approach to teaching and learning

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South African Population

- 55.7 million
- Age ≤ 35): 36.7 million (66%)
- 9 provinces
- 11 languages

AIMS South Africa, Cape Town

Source: STATS SA
Primary Schools

• ~ 14 600 primary schools
• Taught in mother tongue to grade 3
• Language of Learning and Teaching – English (90%) or Afrikaans (10%) (from Grade 4)
• SACMEQ III report: 79% of mathematics teachers in South Africa who taught Grade 6 learners obtained below the levels required for the learners to pass Grade 6
Secondary Schools

• ~6270 secondary schools
• 6.6% of secondary schools produce half the national passes in mathematics
• Top 1000 schools of the 93.4% remaining schools: teacher qualifications and teacher experience had no statistical significance in relation to the learners’ results
• TIMSS 2011 Report, Grade 9 learners performed better by teachers who specialised in Subject Content Knowledge (SCK) and Pedagogical Content Knowledge (PCK)

Source: Centre for Development and Enterprise (CDE, 2014).
School Context
Classroom Environment
Interventions

• Upgrade qualifications
• Specialisation short courses
• Workshops
• Innovation projects
• Cluster projects
• Content gap

Little coordination across interventions and institutions.
Proposed approach to promote IBSME

Collaboration

Teachers, parents and learners

Coordinating & strengthening body
Initial Collaboration

- AIMSSEC (AIMS Schools Enrichment Centre)
- Primary Science Programme
- University of Cape Town (Schools Development Unit)
- University of the Western Cape
- Western Cape Education Department
Teacher Training

- Resources
- Equipment
- Expertise
- Role of ICT
Expertise

• Rural and disadvantaged schools
• Face-to-face, distance and blended learning
• School-based support
• Research-informed interventions
• Integration of theory with context
• Teacher mentorship programme
• Collaboration between scientists and teachers
Resources

- Textbooks
- Learner support materials
- Professional development materials
- Online resources
- Endorsed/accredited courses
- Western Cape Education Department ePortal
Equipment

• Office space at AIMSSEC, teaching facilities at two universities and one NGO, one boarding school
• Cape Teaching and Leadership Institute – Professional Development Centre of the Western Cape Education Department
• ICT infrastructure and devices being rolled out in Western Cape to all schools
Role of ICT

Problems

Lecturers
- Technology
  - Teaching Tools
  - MS Office
  - GeoGebra
  - Internet Skills
  - Communication

Teacher-Tutor
- Technology
  - Google Apps
  - Moodle
  - Skype
  - Vidyo

Teacher-Content
- Technology
  - Gmail
  - Moodle
  - WhatsApp

Teacher-Teacher
- Technology
  - Telematics
  - SMART IWB

Training
- Teaching Tools
- MS Office
- GeoGebra
- Internet Skills
- Communication

Technology
- Google Apps
- Moodle
- Skype
- Vidyo
- Gmail
- Moodle
- WhatsApp
- Telematics
- SMART IWB
- AH Blog
- Social Media

Solutions
Professional Learning Model

Teachers

World class teacher trainers

Tutor system

Free resources

Professional Pathways

PLNs
Thank you