



AIMS

African Institute for
Mathematical Sciences

NEXT EINSTEIN INITIATIVE

AIMS approach to Curriculum Design

Prof. Aissa Wade

Penn State University & AIMS-Senegal

MS4SSA Conference: May 15-16, 2017,
Worcester Polytechnic Institute, USA

AIMS Methodology

- 1. TTIs augment and overlay the national curriculum.**
- 2. Stakeholder consultation to have evidence based information on the gaps in the design, implementation and assessment of the curriculum.**
- 3. Design, implementation and measurement is based on the relevance of learning outcomes.**

- 1. Interactive subject pedagogy**



AIMS Methodology

- 5. School based, peer facilitated: Plan - Teach - Reflect.**
- 6. Is based on school structures.**
- 7. Is broken down into an arsenal of practical resources that teachers can easily refer to in the delivery of lessons (teachers guide, teacher's resource guide etc).**
- 8. Community of practice resources to promote peer learning.**
- 9. Includes the creation of an enabling environment.**
- 10. A gender lens.**



Teaching teachers to engage the learners with practical resources



Including our alumni at the residential courses



Engaging with a learner-centred activity



Video

Tools



**Connected Mathematics Project, MSU -
Teacher's Guide and Teachers manual.**



**Mathematical Thinking, Advanced Certificate
in Teaching, Aiming High Book Series, Aiming
High Teachers Platform.**



**Training of Trainers manual, Teachers guide,
Teaching resources handbook**

Q & A

Thank you!

TEACHING & LEARNING

WHAT IS CHANGING?



	What it used to be	What AIMS is working on
How education is delivered	Uniform Learning (Mass Production)	Customized Learning – Personalization
Sources of Knowledge	Teacher as the Expert	Diverse Knowledge Sources
How learners are assessed	Standardized Assessment	Specialized Assessment
What empowers learners	Knowledge in the head	Reliance of outside sources
Curriculum objectives	Coverage	Knowledge explosion – learning how to LEARN.
How learners access knowledge	Learning by acquisition	Learning by doing
Education ideology	Just-in-case learning	Just-in-time learning



TECHNOLOGY IN MATHEMATICS *Aspirations...*



e-Learning

Learner-driven access to education content



Mobile Learning

Lean education content without the need for classrooms

AIMS seeks to partner with GESCI (<http://gesci.org/>)



Interactive Distance Learning

Tutor driven delivery of education content over long distances

- Rwanda SMART Classrooms
- Cameroon Simulation labs
- South Africa



e-Collaboration

Learning together by working together across distances