Little cards, big cards and mini whiteboards

Raising Achievement through Formative Assessment in Science and Mathematics Education

Marie Joubert and Ingrid Mostert,
African Institute of Mathematical Sciences, Schools Enrichment Centre (AIMSSEC)

Underpinnings
- Our beliefs and values
  - Respecting the teachers and students
  - Building on what we know
- Our theoretical framing
  - Social constructivism
  - Creating concepts with others
  - Building on prior knowledge
  - Making connections (multiple representations)

What we did: the design cycle
- Adapt
- Discuss
- Interview
- Adapt

Lessons plans
- Difficulty of following someone else’s plan
  - Creating outline one-sheet lesson plans
  - Also proving detailed guidance

Introducing the task
- Cut down teaching
- Modelling using big cards
- Using mini whiteboards to gather information

Main activity
- Adapting the language
- Fewer cards
- No blank cards

Finishing off
- Big cards
- Recording sheet

Classrooms
- Small groups
  - Discussion
  - Building knowledge together
  - Opportunities for formative assessment
- Mini whiteboards
  - Sending and displaying
  - Whole class involvement
- Small cards
  - Active learning
  - Engaged students
  - Discussion

Working with individual teachers
- Not organised as professional development but some likelihood of teacher learning

Teachers
- Mini whiteboards
  - Sending and displaying
  - Whole class involvement

Big cards
- Modelling
- Answers, whole class engagement

Cluster Meetings
- One hour
- Time
- Encouraging reflection
- Discussion and review
- A practical approach

I learnt that learners can actually learn on their own.
I have learnt to give them time to struggle.
I use groupwork more with my classes.

It would be better if my pupils knew shapes.

Students
- Made me think
- Exciting
- Group work
- Made us discuss
- Different ideas

Teachers’ experiences of FaSMEd lessons
- Out of their comfort zone
- Short of time
- Wanting to go through the answers

Students’ experiences of FaSMEd lessons
- Out of their comfort zone
- Short of time
- Wanting to go through the answers