

Little cards, big cards and mini whiteboards

Raising Achievement through Formative Assessment
In Science and Mathematics Education



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Underpinnings

Our beliefs and values

Respecting the teachers and students
Building on what we know

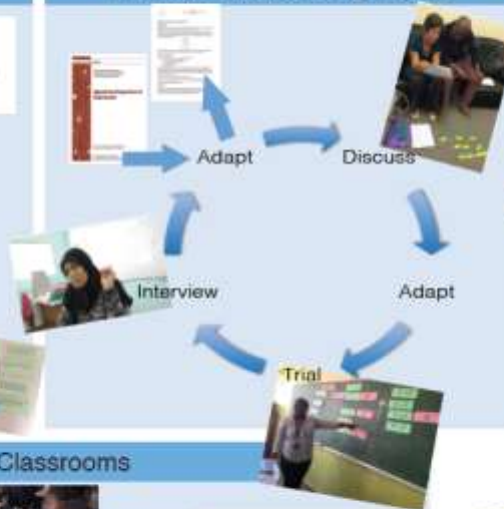
Our theoretical framing

Social constructivism

- creating concepts with others
- building on prior knowledge in mathematics
- noticing sameness/difference
- making connections (multiple representations)



What we did: the design cycle



Design decisions

Lesson plans

Difficulty of following someone else's plan, so
- creating outline one-sheet lesson plans
- also providing 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

Small cards

- Active learning
- Engaged students
- Discussion



Mini whiteboards

- Sending and displaying
- Whole class involvement

Big cards

- Modelling
- Answers, whole class engagement

Students



We learnt through doing the activity rather than just being told

It would be better if my partner knew shapes

made-me-think
exciting
group-work
made-us-discuss

Teachers

Working with individual teachers

Not organised as professional development but some likelihood of teacher learning



I learnt that learners can actually learn on their own

I use group work more with all my classes.

I have learnt to give them time to struggle

I have learnt the value of finding out what they know using mini whiteboards

Teachers' experience of FaSMEd lessons

- Out of their comfort zone
- Short of time
- Wanting to go through the answers