













# PROGRESS REPORT SOUTH AFRICA



> MAJOR ASSERTION:

Research that involves educators, with a sole purpose of improving teaching and learning must be synonymous with the teachers professional development



### THE BIG MOVEMENTS

- Identified schools 6 in SOWETO, identified teachers – 15 [7 mathematics and 6 science]
- Engaged with major research requirements How teachers can embrace curriculum change and effectively deliver it in ways that enhance problemsolving, critical thinking, argumentation and all in spirit of gender equity
- Identified indicators of problem solving, gender equity, critical thinking and argumentation



## Capturing Data

#### TYPES OF DATA

- Teacher lead information current classroom discourses, instructional approaches, pedagogical and content knowledge [Baseline]
- Teachers' pedagogical and content knowledge during and after intervention Collaborative Action Research
- Learners current ability in mathematics and science [Baseline]
- Learners shift in ability in mathematics and science during and after intervention

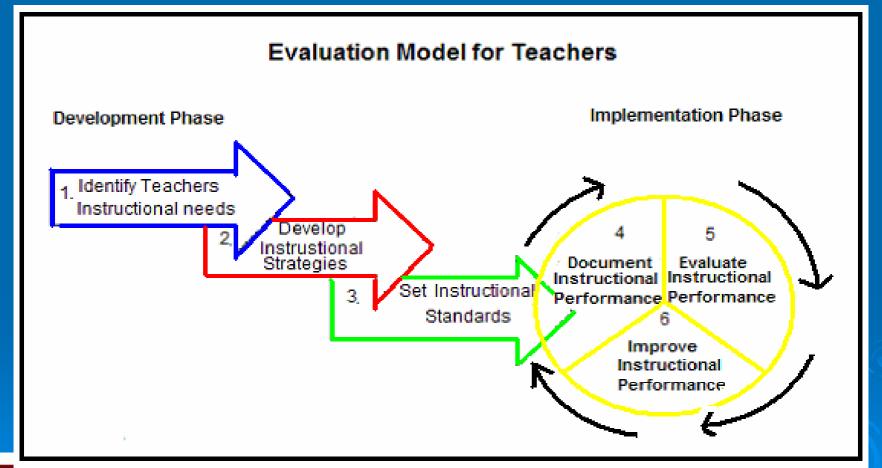


### DATA COLLECTING METHODS

- Classroom observation video record teachers instructional approaches, collaborative teaching and reinforcement of teaching strategies that enhance problem solving, critical thinking and argumentation – THROUGH WORKSHOPS!!!!!
- Record teachers instructional approaches using research instrument developed for pre observation, observation and post observation conferences



# THE MODEL OF TEACHER DEVELOPMENT





### VIDEO OF HOW WE ARE DOING IT IN

### COLLABORATIVE ACTION RESEARCH



# DISCOURSES UNDERPINING THE RESEARCH

- > CRITICAL THINKING
- > PROBLEM-SOLVING
- > ARGUMENTATION
- > GENDER SENSITIVE



## CRITICAL THINKING AND PROBLEM SOLVING INDICATORS

INDICATOR OF PROBLEM SOLVING The teachers' class work or home work questions are such that learners are able	INDICATORS OF CRITICAL THINKING The teachers' exposition, class work or home work questions are such that learners are able to:
to:	
Conceptualise the problem – Learners	Articulate concepts in their own words or ways
understand the problem	
Categorise the problem - Learners plan to	Provide clear and precise definitions of concepts in
solve the problem	their own words
Analyse the problem – Learners solve the	Construct their own knowledge from the
problem	information provided
Finalise the problem – Learners review the	Make logical opinion and conclusion
problem	
Display indicators of critical thinking - see	Able to identify examples from non examples
critical thinking table of indicators	
	Display indicators of problems-solving – see
	problem-solving table of indicators



# INDICATORS OF ARGUMENTATION

The teachers' exposition, class work or home work questions are such that learners are able to:

- Make claims
- Generate data
- Make warrants
- Make backing
- Advance rebuttals
- > Debate



## TEACHER EMPOWERMENT

### Teachers are empowered when:

> THEY SEE THEIR ACTION HAS MEANING.

'This is becoming interesting and very useful to me and my colleagues because I am able to know what I need to know and do when it comes to enhancing problem solving skills in my classroom'

One teacher was quoted after a workshop facilitated by one of their colleagues



### > THEY FEEL THEY ARE PART OF THE ACTION:

'That Dr. Luneta did not work and it cannot not work with my learners. Your questions do not as you always say reflect the context. Lets rewrite these questions and you will see the difference in participation.' Said Mrs Moloi to me during my lesson in her class.

After rewriting the questions and the learners surely seemed comfortable

'I feel so good that I can also correct you' She concluded beaming with satisfaction



## CURRENTLY

- Collaboratively developing lessons with teachers and teaching
- Conducting workshops to discuss the lessons
- Developing more intervention strategies in problems-solving, critical thinking and argumentation
- Identifying core issues in the new curriculum how to address new content in the curriculum – forward mapping



# MONITORING AND EVALUATING PROGRESS

- > Pre lesson observation conference
- Lesson observation
- > Post lesson observation conference
- > Teachers' workshops
- Visits of international colleagues as critical reviewers of progress



## THANK YOU

