

# Teacher education through distance education



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## Outline

- What is the role of distance education in the teacher education context?
- How is distance education understood?
- Why use distance education for teacher development?
- What are the challenges for changing practice?
- What approaches should inform teacher education through distance education?



## Context

- Extensive and increasing use of DE for teacher development globally (Robinson & Latchem 2003) and in Africa in particular in pursuit of EFA goals and a global shortage of teachers in general and primary level teachers in particular (ADEA 2002; Sayed 2006)
  - Used for IPET (initial)
  - Used for CPET (continuing)
  - Used for IPET while in-service
  - Used for education manager development



## DE to centre stage

Distance education may well be moving to centre stage

But

- need to move from understanding of DE as a monolithic relatively uniform mode of delivery

to understanding of distance education as

- A collection of methods for the provision of structured learning in situations where students are unable to primarily to attend fixed classes at a centralised venue and in the physical presence of a teacher.



## Not one 'mode' – see SA's policy

The BEd will be available in five modes of delivery:

1. Full or part-time contact study;
2. Part-time by a combination of contact and distance learning, including the option of a learnership;
3. Distance learning to mature first-time recruits to teaching who are in other occupations or who have not yet entered employment;
4. By distance learning and mentored school-based practice to first-time recruits to teaching who are employed by provincial Education Departments as student teachers;
5. By distance learning and mentored school-based practice to serving teachers who wish to upgrade their qualifications..



## Why DE for teacher development?

The use of distance education methods is essential because it's about improving access

The discourse of cost effectiveness is being left behind to some extent

[DE often more cost-effective for TE (Perraton 2000; Oliveira & Orivel 2003) because

- often large and recurring numbers of teachers involved which can lead to economies of scale; and
  - the opportunity costs involved in not removing practising teachers from their classrooms and therefore having to employ temporary replacements.]
- From economics to quality ⇔



## Teacher education quality challenges across all 'modes of delivery'

Changing practice:

1. The coordination of subject, pedagogic and conceptual knowledge
2. School-based curricula  
*Teacher education programmes need to be conceptualised in ways that incorporate the daily life and work of the teacher (Moon and Dladla, 2006)*
3. Impacting on the 'teach as you were taught' syndrome – engaging students' value systems and teaching them to question current practice



## Changing practice means questioning current practice

- Novice teachers are often expected to engage in practices which have not been modelled in their own experiences as learners; and
- Experienced teachers often find that the "new" practices being encouraged contradict and undermine their assumptions and values about the nature of teaching (Prabhu 1999; Tabulawa 1997)

Recent experience piloting a module on HIV/AIDS for teachers – Teacher personal identity challenged very intimately – but teachers (and their lecturers) realised that unless they allowed this to happen, they couldn't deal with their learners.



## Changing practice means questioning current practice

- Novice teachers are often expected to engage in practices which have not been modelled in their own experiences as learners; and
- Experienced teachers are often expected to be being encouraged to challenge their own assumptions and practices (Prabhu 1999; T

*Sometimes you will hear people say that these children are sexually active – but they do not realise that we are all sexually active. What counts a lot is the way we live our own lives...*

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## Changing practice: a question of modelling

How does modelling happen in distance education?  
Moll (2003:21-2) argues:

- “In distance education, the central problem becomes one of how best to create a situation in which learners are able to engage in and be supported in a particular, unfamiliar activity – a knowledge practice – without having to be in the constant presence of practitioners of that activity ...

[Hence]

- “The texts, learning guides and structured activities of a distance programme, together with judiciously spaced and used contact sessions, must provide a practice-in-itself.”



## Modelling in DE: HIV/AIDS course for teachers

*Lesson of experience:* The way that the personal and professional have to come together in teaching HIV/AIDS means that it is critical to use approaches which allow for students to contribute from their personal experience. At the same time, however, this is often threatening, and often the use of other people's experience (case studies) or other media, such as the visual, assist.

*MaNdlovu was economically dependent on her husband. If she was not economically dependent she will, she will ... he will let go. ... It gives me strength to withstand that, I as a woman, I have the right to say no, to sex, if I don't want to have sex.*



## Teachers' conceptual knowledge- in-practice

Although teachers may well have succeeded in schooling at the level they are required to teach, this does not mean they have necessarily mastered the concepts that were covered, understand the conceptual progression across the grades in which they will specialise or will be able to mediate it in the classroom.

*The task for teacher educators is 'to characterise and articulate 'subject knowledge for teaching' and to clarify how its acquisition by teachers lies in the co-ordination of subject, pedagogic and conceptual knowledge – or what can be renamed teachers' conceptual knowledge-in-practice. (Adler, Slonimsky and Reed 2002)*

## Modelling in DE: a Maths solutions guide

### Subtraction using the vertical algorithm

$$\begin{array}{r}
 \overset{5}{\cancel{6}}0\overset{13}{\cancel{3}} \\
 - 257 \\
 \hline
 6
 \end{array}$$

There is nothing left in this next column, so I'll borrow from the 6.

- 1 What calculation error did the learner make in subtraction?
- 2 What conceptual error did the learner make? (Think of place-value concepts).
- 3 Was the rule 'borrow from the next column' clearly understood by the learner? Explain your answer.
- 4 In many instances, the learner's existing knowledge is incomplete or inaccurate – so he/she invents an incorrect meaning. Explain the subtraction error in the light of the above statement.

## Modelling in DE: a Maths solutions guide

### Solutions to Activity 4: Subtraction using the vertical algorithm

1. The **calculation error** made is that the learner borrowed from the hundred's column and not the ten's column.
2. The **conceptual error** made is that the learner thinks that zero in the ten's column means there is nothing there. The learner does not realize that the zero has representation in this column as a tens place holder. He/she does not realize that when taking one of the hundreds from the hundreds column, he/she has now got ten tens in the tens column.
3. The rule to "borrow from the next column" was not fully understood by the learner. ...

#### Suggested links for alternative activities:

<http://www.aaamath.com/fra57a-addfractld.html> (lesson ideas)

<http://www.tullyschools.org/tfiles/folder204/Everyday%20Math%20Algorithms.pdf> (alternative algorithms)

[http://math.about.com/od/addingsubtracting/ss/3digsubre\\_7.htm](http://math.about.com/od/addingsubtracting/ss/3digsubre_7.htm) (worksheets)

[www.oeafrica.org/acemaths](http://www.oeafrica.org/acemaths)

## What is needed?

- A clear national vision of the kind of teacher we wish to develop
- An understanding of the varied contexts in which teachers work
- Purpose-driven programme design
- Programme delivery that models appropriate practice
- Ongoing evaluation and review
- Greater collaboration

## What kind of teacher?



- ▣ Transmitter of information or co-constructor of learning?
- ▣ Roles of a teacher?

## What kind of contexts?



- ❑ Environment often not optimal for learning
- ❑ Often limited resources for teachers and learners
- ❑ Often individual rather than team practices
- ❑ Often authoritarian school leadership militates against innovation
- ❑ Often limited support from MoE, little or no developmental appraisal

## Purpose-driven programme design?



- ❑ IPET or CPET?
- ❑ Primary school vs Secondary school?
- ❑ Well- or low-resourced learning environments?
- ❑ Prior learning experiences of learners and learner-teachers?
- ❑ Language of learning and teaching?
- ❑ Does assessment value knowledge or practice?



## Programme delivery that models appropriate practice?



- ▣ Independent as well as cooperative and collaborative learning
- ▣ Resource-based learning
- ▣ Contextualised learning
- ▣ Learners' own knowledge and experience valued
- ▣ Multiple perspectives
- ▣ Appropriate scaffolding



## Ongoing evaluation and review?



- ▣ Site-based assessment and support (sampling?)
- ▣ Focus on quality of teaching against agreed criteria
- ▣ Developmental appraisal
- ▣ Leads to revision of programme design and delivery that is budgeted for

## Greater collaboration?



- ❑ Enrolment in school teams and school clusters
- ❑ Support for student study groups
- ❑ HEI/MoE partnership
- ❑ Development of OERs e.g. TESSA but
- ❑ Training in how to use OERs esp. the need to adapt for context