



education

Department:  
Education

PROVINCE OF KWAZULU-NATAL

**Foundation Phase  
Training Workshop 4: August 2015  
Facilitator's Guide**

**Maths**



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what I do matters

Endorsed by:



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Workshop 4 Mathematics: August 2015  
Workshop guide for facilitators

In this workshop you will find out more about error analysis – how to do it and how to use it productively in your class. The discussion is based on the DBE UNICEF guide, *Using learners' responses to inform the teaching of Mathematics*. Suggested times are given below. If you have more time and want to continue the discussions for longer you are free to do so.

### Workshop plan

- 8.00 – 8.30 – Arrival and distribution of materials for the workshop
- 8.30 – 9.30 – Activity 1: Group error analysis activity (1 hour = 60 min)
- 9.30 – 10.30 – Activity 2: ANA learner marks analysis (1 hour = 60 min)
- 10.30-11.00 – Tea
- 11.00-13.30 – Activity 3, 4 and 5: Data Handling and Measurement error analysis. (2 ½ hours)
- 13.30-14.30 - Lunch

### Session 1: Activities 1 and 2

This session involves two activities to introduce you to the process of error analysis – using first learner responses as data and then learner marks as data. Each activity should take about 60 minutes. Your facilitator will guide you as you break into groups and have large group discussions throughout this time.

The item selected for the first activity is located in the DBE UNICEF guide where you will be able to find information in relation to each of these questions for discussion. When you facilitate this session it is important that you allow participants to grapple with the errors presented in the scanned learner extracts, but you should also encourage them to think of errors that they have come across in their own context.

As a facilitator you need to read the introductory pages to the materials as well, before you guide a session, so that you are comfortable to talk to your group about error analysis. (*The item discussion is copied on the following pages below for you for ease of reference.*) This introductory discussion is important because it will help teachers to strengthen their *belief in the importance of error analysis as something useful that can inform their teaching*.

*What is error analysis?*

- Analysing errors in learners' work in order to think diagnostically about what the errors tell about the way in which learners were thinking when they made the error.
- Asking learners' questions about their work can assist in error analysis but Error Analysis can be done based purely on written work.
- Error analysis calls for interaction with learners about the errors – it is not just a theoretical activity.

*The value of error analysis is that it:*

- Helps teachers to understand learner thinking so as to be able to adjust the ways they engage with learners in the classroom situation
- Helps teachers learn to recognize learners' thinking
  - Conception (correct understanding of mathematical content)
  - Misconception (incorrect understanding of mathematical content)
- Helps teachers to revise their teaching approaches

**IMPORTANT NOTE:** (*Re. Extract from DBE UNICEF materials on the next 3 pages*)

### **ANA 2013 Gr 3 Maths Item 10.1 and 10.2: DBE UNICEF Grade 3 guide (pp. 135-141).**

The participants will NOT refer to the guide extract of ANA Item 10. This discussion is meant to be open and based on their knowledge and experience. There are three activities in Session 2 during which participants will refer to the DBE UNICEF guide materials. The extract is included here for YOU to help you to prepare yourself for the discussion.