TEACHING AND LEARNING ABOUT MEASURING MASS, CAPACITY AND LENGTH IN THE FOUNDATION PHASE

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Mathematics Education Primary Programme

TARGET AUDIENCE: Foundation Phase Teachers.

DURATION: 2-hour workshop

MAXIMUM NO. OF PARTICIPANTS: 20

MOTIVATION

A variety of external tests, such as Annual National Assessments and other systemic evaluations have shown that learners do not have the expected skills in measurement. This is perhaps because many Foundation Phase learners are given few opportunities to develop conceptually the notions of mass, capacity and length: possibly many young learners only experiences of measuring is using a ruler. This workshop aims to look ways of sequencing measuring concepts, activities and tasks.

CONTENT

A range of teacher educators have discussed ways in which children learn to measure. This workshop will refer to the work of Murray (2009), Wilson and Rowland (1993), Booker, et al (1997) on this topic. The workshop will examine the ways in which these suggested learning pathways match the sequencing of content around measuring in the Curriculum and Assessment Policy Statement. Teachers will then break into groups, to work through a series of work stations on measuring mass, measuring capacity and measuring length. Workstations will use readily available every day apparatus. Participants will start by using direct measurement to compare and order objects according to length, mass or capacity. They will then measure using informal measures. Finally they will consider ways to introduce standard units of measurement. At the work stations there will be discussion on learner misconceptions and common learner errors.

ABSTRACT

This workshop offers Foundation Phase Teachers some ideas about practical measurement activities using every day apparatus. Participants will use both direct measurement and indirect measurement; they will work with informal measures and consider ways of introducing metric measurement. The aim of the activities is to help learners to understand the concepts of mass, capacity and length. The workshop will start by focussing on the ideas of Wilson and Rowland (1993), Booker, et al (1997), and Murray (2009) about how young children learn to measure. It will examine the ways in which this matches the suggested sequencing of content around measuring in the Curriculum and Assessment Policy Statement. Participants will examine ways of sequencing measuring concepts, activities and tasks.

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