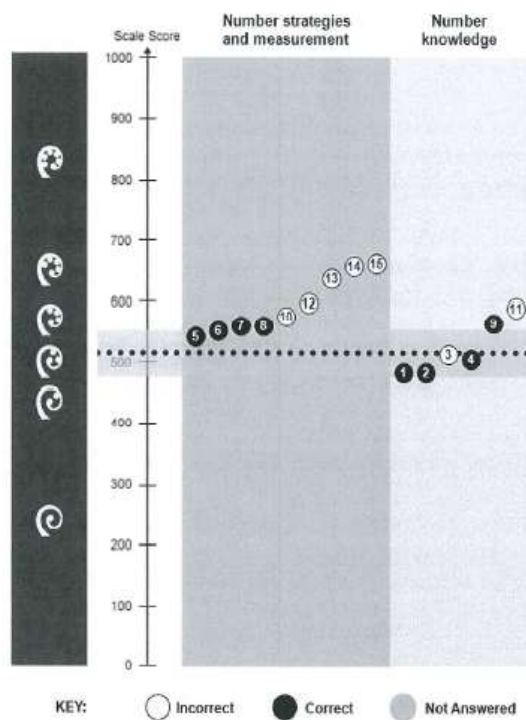


Learner Assessment Report, Numeracy

Assessment Type: Non-Adaptive Snapshot for Printing, Audience: Adult, Threshold: No Threshold

Initial Numeracy Assessment Sem 1 2014

LEARNER	SCALE SCORE	STEP	ASSESSMENT DATE
	515 +/- 39	Step 3 	18 February 2014



This student sat a non-adaptive (printed) Assessment Tool diagnostic.

He assessed as step 3 on the Assessment Tool.

The analysis of the individual incorrect questions showed he had significant gaps in place value and measurement.

The results of the diagnostic provide the information to the tutor to plan for the contextualised diagnostic and later the teaching activities.

This is a sample diagnostic for measurement for the forestry industry

The image is a composite of two parts. The left part is a printed diagnostic test titled "Measurement Pretesting Diagnostic: Forest Industries level 2". It contains three steps of questions. Step 1 asks to order measurements from shortest to longest, with options A) 3.00m, B) 30.5 cm, and C) 1.2m. Step 2 asks how many centimeters are in 1.2m, with options A) 1500, B) 1200, and C) 10.2. Step 3 asks how many meters are in a kilometer, with options A) 1000 meters and B) 1 kilometer (km). The right part is a handwritten response from "Learner A". It shows the student's answers for Step 1 (B) 30.5 cm, Step 2 (B) 1200, and Step 3 (A) 1000m. A note next to the Step 3 answer says "There is 1000cm in a meter the answer should be 500cm".

Measurement Pretesting Diagnostic:
Forest Industries level 2

Step 1:
Put these measurements in order from the shortest to the longest length

Answers
B) 30.5 cm
C) 1.2 m
A) 3.00 m

A) 3.00m
B) 30.5 cm
C) 1.2m

Step 2:
How many centimeters in 1.2m
A) 1500
B) 1200
C) 10.2

If there is 500 meters in half a kilometre how many meters in a kilometer
A) 1000 meters

If there is 1500m in one and a half kilometers, how much distance would you have left if you took away 500m?
A) 1000m
B) 1 kilometer (km)

Step 3:
If there is 10mm in a centimeter and a 100cm in a meter, how many centimeters in half a meter.
A) 50cm
• There is 1000cm in a meter the answer should be 500cm

Learner A

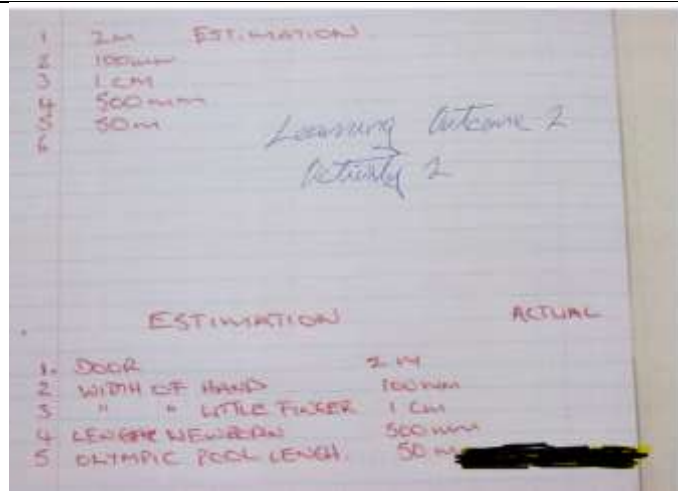
This is an example of the contextualised diagnostic given to a forestry student. Although it does not use 'forestry vocabulary' it is contextualised because at the time students were working on distance measurements.

The diagnostic was specific to measurement because of the necessity of forestry workers to be accurate in many aspects of measurement relevant to their working in the forestry industry.

The diagnostic shows that there is some misunderstanding in question 3. The student is asked to calculate how many centimetres in a metre. This required the student to have place value understanding and knowledge to convert millimetres, centimetres and metres.

The results of the diagnostic led to activities in place value and 'benchmarking' (accurate estimates) measurement.

Measurement and place value activities used as a result of 'gaps' in learning around place value and measurement conversion between mm,cm,m



Students participated in a conversation, sharing ideas and testing the reasonableness of answers first by estimation and then using a tape measure.

Students recorded answers then shared as a group

Links to Measurement, Speaking and Listening

Students were given a list and asked to estimate the height, length of different objects

How high is a doorway?

Converting mm to m
Place value charts

			2	.	0	3 7	
						37 mm 3 cm 7 mm	
				.	5	6	
						560 mm 56 cm 0.5	
				.	0	4 5	
						45 mm 4.5 cm	
thousands	hundreds	tens	metres	.	tenths	hundredths	thousandths
			5	.	0		1
thousands	hundreds	tens	metres	.	tenths	hundredths	thousandths
45	0	0	0	.			
thousands	hundreds	tens	metres	.	tenths	hundredths	thousandths
0	0	0	0	.	0	1	

Students were asked to record a number of measurements onto a place value chart
Links to Measurement Reading and Writing strands
Sharing with the group links to Speaking and listening

50 cm
25 cm 1.853 m
0.5 m 5.0 m



This dominoes game was given as a prior learning activity (formative assessment) and then as a summative assessment. In the beginning the activity was very difficult and most students struggled with the measurement conversions. After completing the other activities the game was tried again successfully. The game was shared with neighbouring classes! The Conversions domino game can be found on page 49 of the [Teaching Adults to Measure and Interpret Space and Shape](#) document.