



## Significant Episode: Estimation Walks (maths300 lesson)

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### *Finding 5.3: Metacognition*

*Help students recognise what they know well, what they need help with and what they still need to learn.*

### Background

I decided to look into a measurement concept as I have found that many of my students struggle to find reality in the measurement I am trying to teach. They do not have the real life connections and my aim is to try to find some links.

### What happened?

This lesson focussed on improving students' concepts of length and their understanding of decimals in a measurement context. In essence students were challenged to walk a given distance from a starting point and compare their estimate with the actual measured distance. Class results were recorded and analysed. The process was repeated with a view to improving both the class result, and each student's estimation skills.

### Results

The pre-test showed many gaps in the Indigenous student's understanding of not only measurement conversion but finding the difference of two numbers and comprehension of the written questions. Their post-test results in general showed a marked improvement. During the lesson one of my Indigenous students said that she finally "gets it" (referring to these aspects of measurement).

**"I never used to estimate. Now I estimate how big my brother's room is, then I measure it."**

After the lesson I informally interviewed all the Indigenous students and focussed on their learning about estimation and their thoughts on how they thought they had gone. All students were able to explain the activity in detail using language such as estimate the distance and working out the mean and the class average, and they were happy that they had learnt something new. One student was able to explain verbally how to work out the difference between her estimation and the actual distance and was able to verbalise her understanding of centimetres and metres. She was also able to verbalise what estimation was and was quite excited about this new knowledge she had gained. "I never used to estimate. Now I estimate how big my brother's room is, then I measure it."

I found the lesson to be huge in content. The children were engrossed in the activity but needed and accepted assistance with working out things. I think that all of the kids got lots out of it even though it would have varied with the maths knowledge of the kids.

### Some questions to prompt discussion:

1. *What do you think is the important learning for the teacher in this story?*
2. *How could the teacher build on the student's learning?*
3. *What other interesting or important aspects are in this Significant Episode?*