

UNDERSTANDING MATH PROCESSES

When I returned from my TACT Workshop at 12.30 pm today, I saw a note on my table from my Principal, who was away at a 2 days' course, requesting me to take his Math Enrichment class with the Primary 2 pupils. The topic was on 'Weight'. I had barely 40 minutes to gather my thoughts about the lesson, grab the materials I needed for the lesson and design an appropriate worksheet for the 1 hour session! So, how do I engage the pupils and get them to think creatively in order to solve a problem mathematically? Then an exciting idea came to me - the Ambitious Target Tool lends itself perfectly to the activity that I wanted to close the session with. For the final activity for the session, I took out 3 empty boxes of different shapes and sizes. I told the pupils that they must help me arrange the boxes in ascending order of their weights. "How would you go about doing that?" I asked. "What difficulties do you think you would encounter?" The first obstacle that a boy came up with was that there was no weighing machine. "Well," I said, "I can't help you there. But you could use this weighing balance here. Would it help?" "Yes," all of them echoed. "Are there any more obstacles if you have a weighing scale?" And together, the wonderful ones came up with the following Ambitious Target Tool.

THE TARGET OF OUR ACTIVITY:	
<i>We succeed in arranging the 3 boxes given, in ascending order of their weights.</i>	
<i>Obstacles</i>	<i>Intermediate Objectives</i>
1. We don't have a weighing machine.	1. Mrs Wong provides us with a weighing balance.
2. We don't know which is heavier, Box A or B.	2. Find out which is heavier, Box A or B.
3. We don't know which is heavier, Box B or C.	3. Find out which is heavier, Box B or C.
4. We don't know which is heavier, Box A or C.	4. Find out which is heavier, Box A or C.

After getting the pupils to do the above Ambitious Target, simple though it was, with only 4 obstacles, we carried out the activity. And then the kids arranged the Boxes in order of their weights quite easily. Then from under my table, I brought up a weighing machine and got the kids to measure the exact weights of the boxes. How they protested about my earlier lie that I did not have a weighing machine! But they had the satisfaction of proving themselves correct in their earlier deductions. What an invaluable boost to their confidence! I may be wrong, but I sincerely believe that how well two children of equal Mathematical ability do in Math is directly proportionate to each individual's level of confidence.

My first attempt at using the Ambitious Target Tool was an exhilarating experience, more so when I had so little time to actually plan a proper lesson. Never have I conducted a Math lesson, so unprepared, but paradoxically, with so much satisfaction about the outcomes.