IDEA 98

CAN YOU 'REACH' YOUR HEIGHT?

This idea is to consider how a person's arm span (reach) compares to their height and requires two measures to be taken, height (h) and arm span (s), (i.e. the length from left-hand finger tip to right hand finger-tip).

To use this idea I would prepare several tape measures placed both horizontally, approximately at students' ('average') shoulder height, and vertically around the room. This is so students can take the two measures as soon as they enter the room and the results can be written on the board/screen in a table of results.

By making a scatter graph of h against s students can see how spans and heights compare and the following questions might typically be posed:

- How many people in the class are taller than their spans?
- How many people are wider than their height?
- Within a 5 per cent range, how many people have a span equal to their height?
- What percentage range would we need for half the people in the room to have a span equal to their height?

Other comparative measures could be:

- Height.
- Distance around head (around forehead and across the top of your ears).
- Length of smallest finger.
- Hand span.
- Length from wrist to elbow.

Each of these measures will provide plenty of opportunities for students to work on:

- Different types of averages.
- The 'most average' person in a class.
- The range.
- Grouped frequency graphs.
- Scattergraphs.
- Whether approximate ratios exist between pairs of measures, for example does an approximate ratio exist between distance around head compared to height?