

WORKSHOP TWO – workshop details

Timing	Detail	Resources
5 mins	<p>Introduction to the session</p> <p>Explore two questions.</p> <ul style="list-style-type: none"> • <i>Do the heights of Karekare College boys tend to be greater than the heights of Karekare College girls?</i> • <i>Do Karekare College students who walk to school tend to get there faster than Karekare College students who take the bus?</i> <p>In a previous session “students” have taken samples to answer these two questions, they have drawn dot plots and box plots. They have made descriptive statements and had inferential thoughts about each question. At the end of the session they have transferred the boxes (or signal) information about the two questions onto pre-prepared grids.</p>	PPT
15-20 mins	<p>Spread out the two sets of graphs.</p> <p>Taking one set at a time make observations across the set of graphs. What do you notice? What is similar, what is different? Look at shift, overlap, the medians, what do you notice? Write descriptive statements about what you notice.</p> <p>Encourage groups if they don’t automatically to sort the graphs.</p> <p>Collate back ideas of what groups found on the board. Ask them about the decisions they made when sorting the graphs in each set.</p> <p>Overall message: <u>Situation 1</u> (heights): in all samples the boxes overlap by a lot Sometimes the boys box is to the right (higher) sometimes the girls box is to the right (higher) Sometimes the boys median is higher, sometimes the girls median is higher, sometimes they are the same, the medians are all within the overlap of the two boxes The message is inconsistent, the samples give different messages and I am not sure what might be happening back in the populations, I can’t say if boys tend to be taller than girls or if girls tend to be taller than boys.</p>	<p>Sets of height boxes, sets of time to school boxes.</p> <p>PPT</p>

	<p><u>Situation 2</u> (time to school): in all samples the bus box is further to the right than the walk box</p> <p>Sometimes the boxes overlap, sometimes they do not, when they overlap it is only by a small amount</p> <p>The bus median is always higher than the walk median and all but one of the graphs the bus median is outside the box of the walk. In the one situation where it is not, the bus median is equal to the walk median, but the walk median is below the bus box. In all cases at least one of the medians is outside the overlap of the two boxes.</p> <p>The message is consistent, the samples are giving the same message, I am fairly confident that back in the populations the time it takes to get to school by bus will tend to be longer than the time it takes to walk to school.</p>	
	<p>Movies to reinforce the message, including getting teachers to raise their hands to indicate which median is higher and to reinforce the constant changing for situation 1 and minimal if no changing for situation 2.</p>	<p>Movies</p>
<p>15-20 mins</p>	<p>Trying these ideas out. Complete their example from workshop 1. Conclusion format: I would claim that back in the two populations</p> <p>Explain why you have made this conclusion.</p> <p>Is my conclusion consistent with the literature?</p> <p>Eg: iron data girls/boys I would claim that ... <i>ferritin levels of girls tend to be higher than ferritin levels of boys back in the two populations.</i> Explain why you have made this conclusion. <i>This shift is big with only a small amount of overlap. The boys' median is below the girls' middle 50%. If I were to take new samples I would expect to make the same claim that is that ferritin levels of girls tends to be higher.</i> Is my conclusion consistent with the literature? <i>My conclusion confirms / does not confirm that boys tend to have a higher risk of having lower iron levels than girls.</i></p> <p>Eg iron data premature/non-premature I would claim that ... <i>I am unable to make a call as to which group (premature or non-premature) has the highest iron level back in the two populations.</i></p>	<p>PPT</p>

	<p>Explain why you have made this conclusion. <i>This shift is not big enough; there is a large overlap. Both medians are within the overlap. If I were to take new samples I could easily get the medians the other way around.</i></p> <p>Is my conclusion consistent with the literature? <i>My conclusion confirms / does not confirm that children born prematurely have lower iron levels than children who were not born prematurely.</i></p>	
	<p>Short video clip to set scene 0-27secs, 10 mins to 11:20 mins. Example 1: IRON DATA – boys and girls</p> <p>Example 2: IRON DATA – formula fed and high cow’s milk intake</p> <p>Example 3: IRON DATA – premature and non-premature</p>	<p>Short clip PPT</p> <p>Workshop 2- handout 1</p>
5-10 mins	<p>Wrap up</p> <ul style="list-style-type: none"> • Appreciating sampling variability • Considering shift and overlap • Making a call • Justify the call 	<p>PPT</p> <p>Workshop2 – handout2</p>