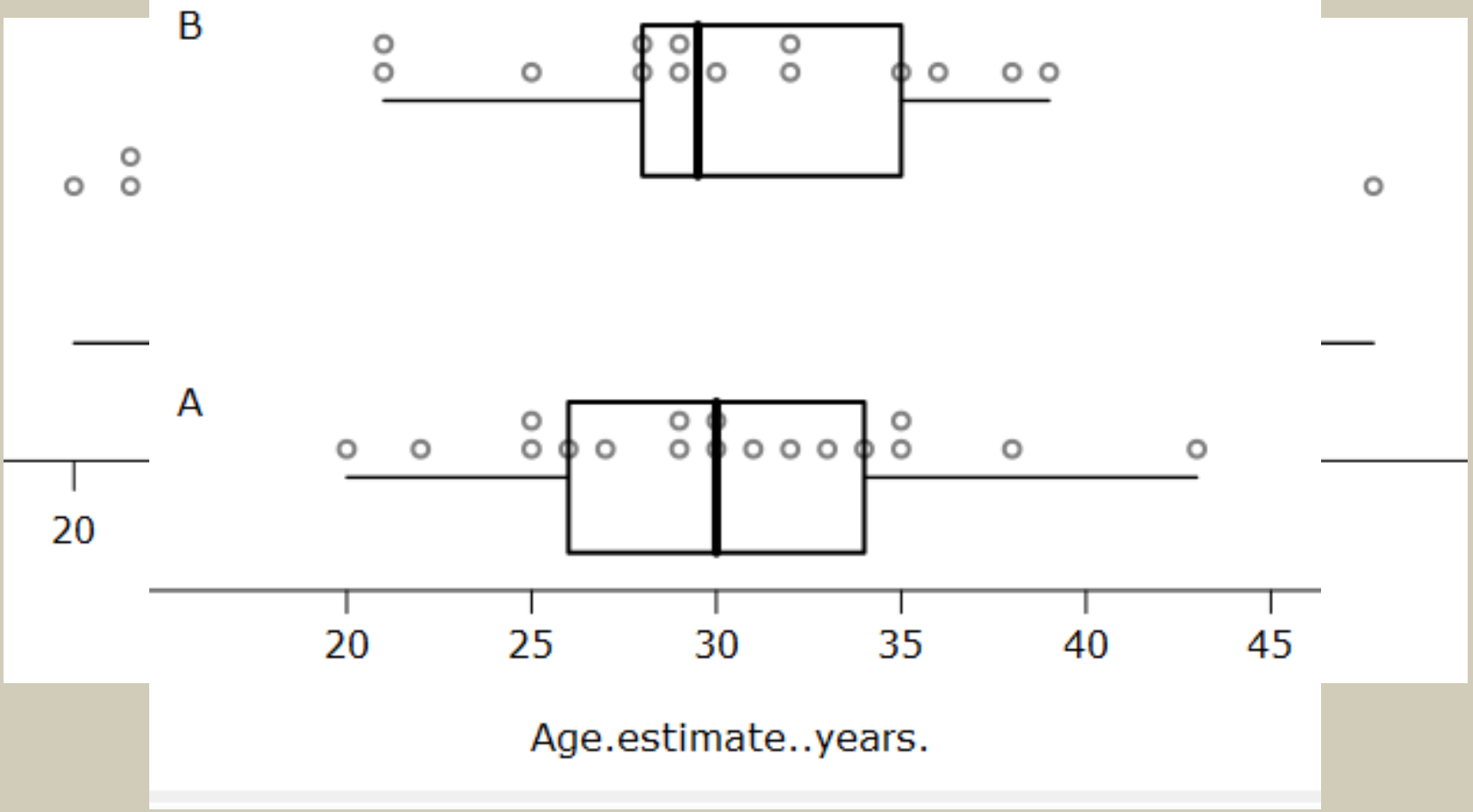
EXPERIMENTS AT LEVEL 7

Emma Wilson

Avondale College

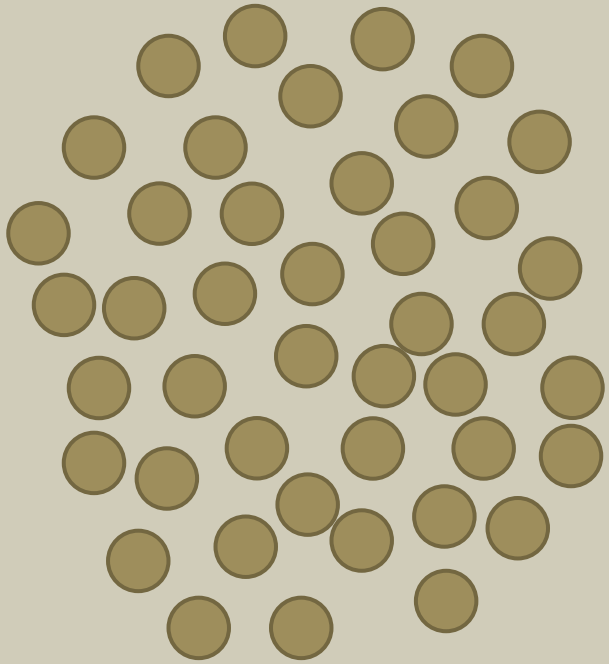
ESTIMATE THE AGE OF THIS PERSON

SOME RESULTS I PREPARED EARLIER ☺



On the next slide, you will be shown some dots. You will be given 3 seconds to look at the slide. You will then need to write down how many dots you think were on the slide.

Estimate how many dots are shown below



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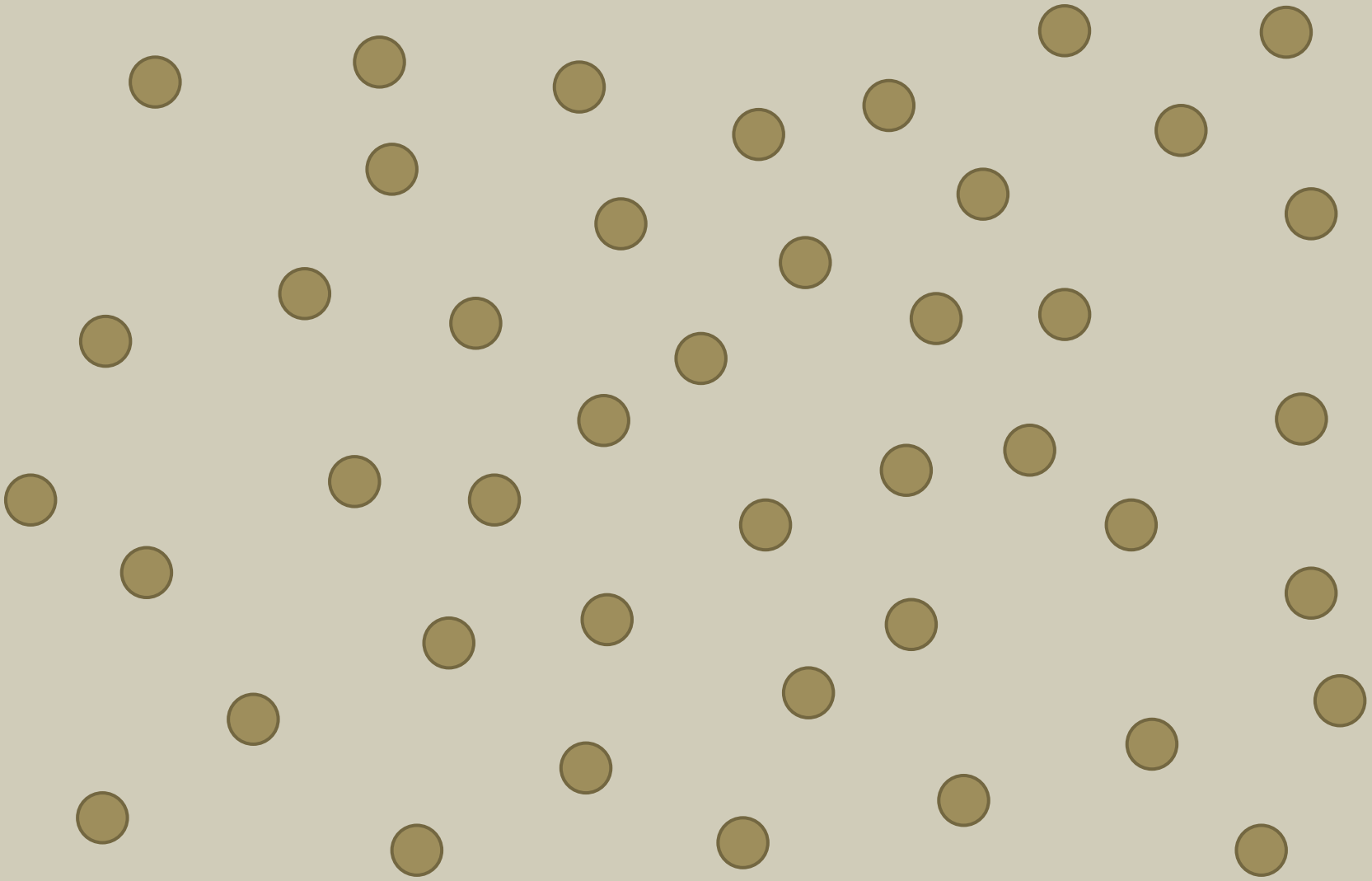

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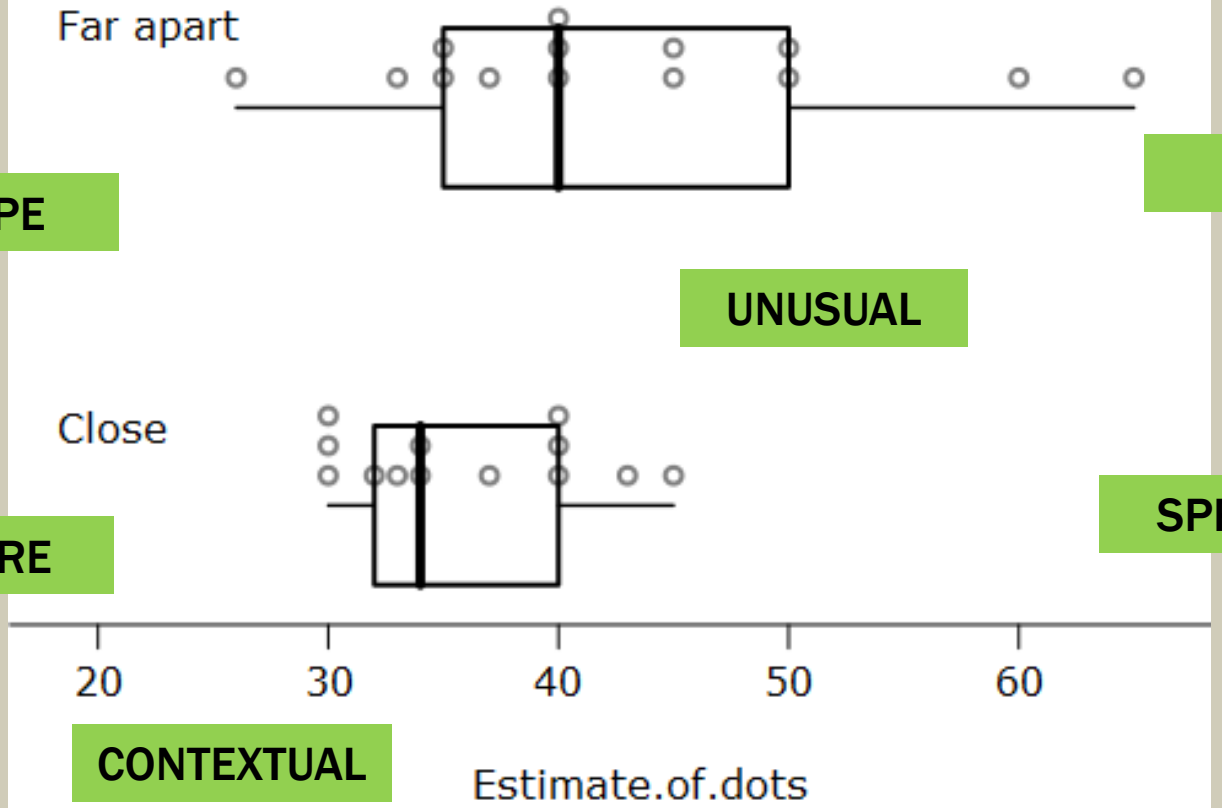

SHAPE

SHIFT

UNUSUAL

CENTRE

SPREAD

CONTEXTUAL

Summary of Estimate.of.dots by Treatment

	Min.	1st Qu.	Median	Mean	3rd Qu.	Max.	Std.dev
Close	30	32.0	34	36.00	40.00	45	5.164
Far apart	26	35.5	40	42.93	48.75	65	10.594

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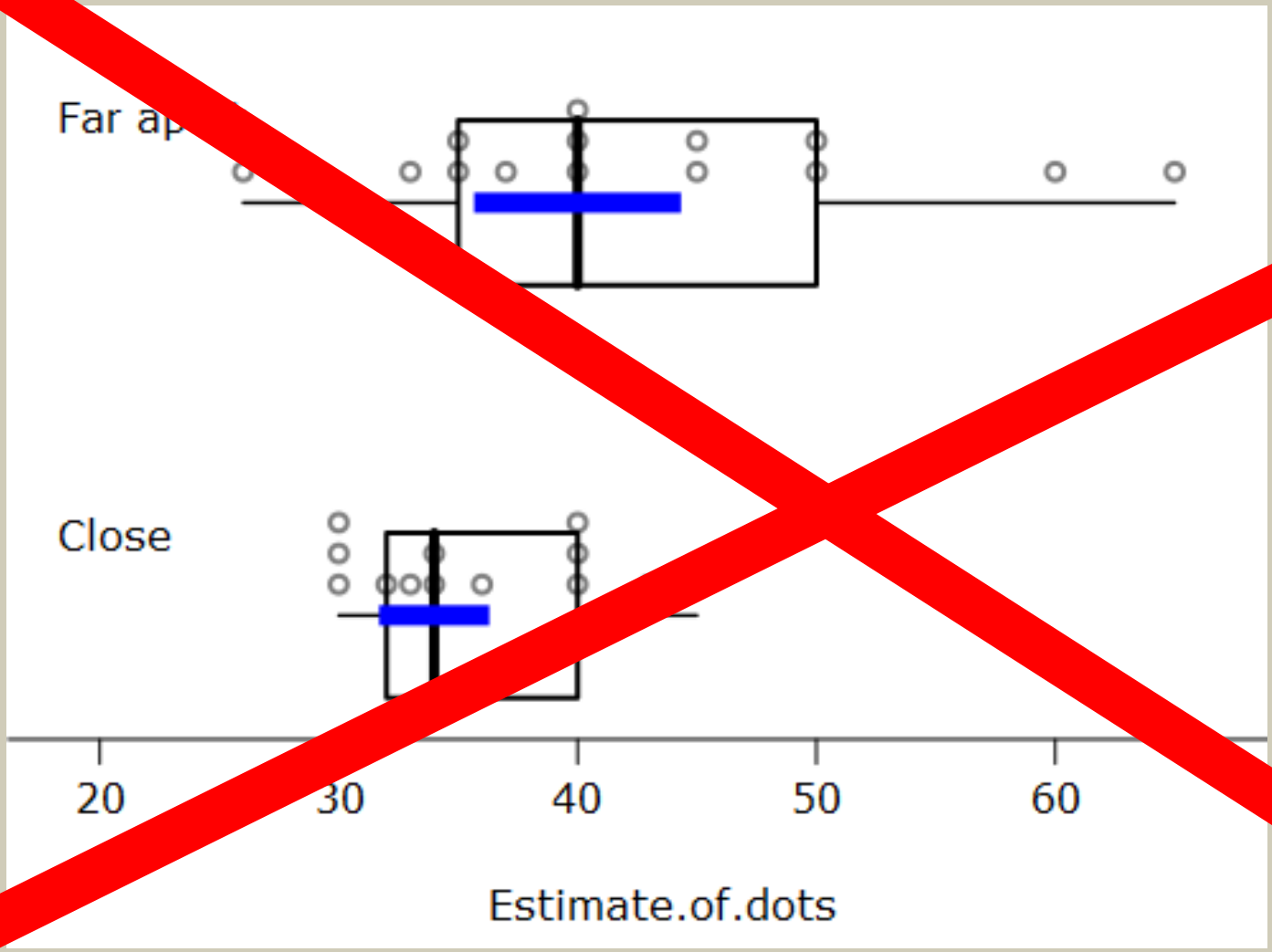


LINKING LETTERS

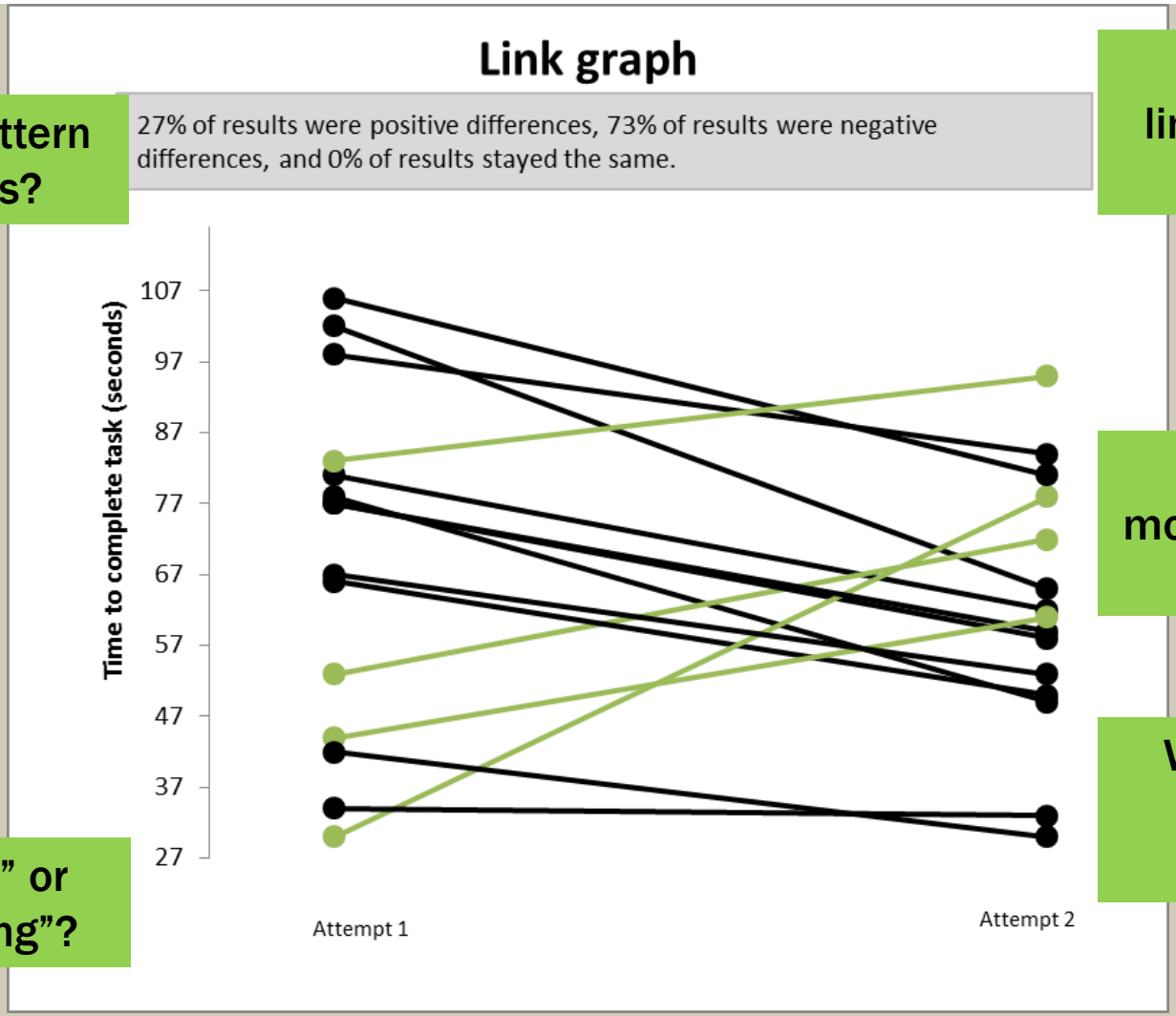
READY....

.

SET....

SOME RESULTS I PREPARED EARLIER ☺

Is there a pattern to the links?



What do the lines/links show you?

Are the lines mostly going up or down?

Why are some steeper than others?

"expanding" or "compressing"?

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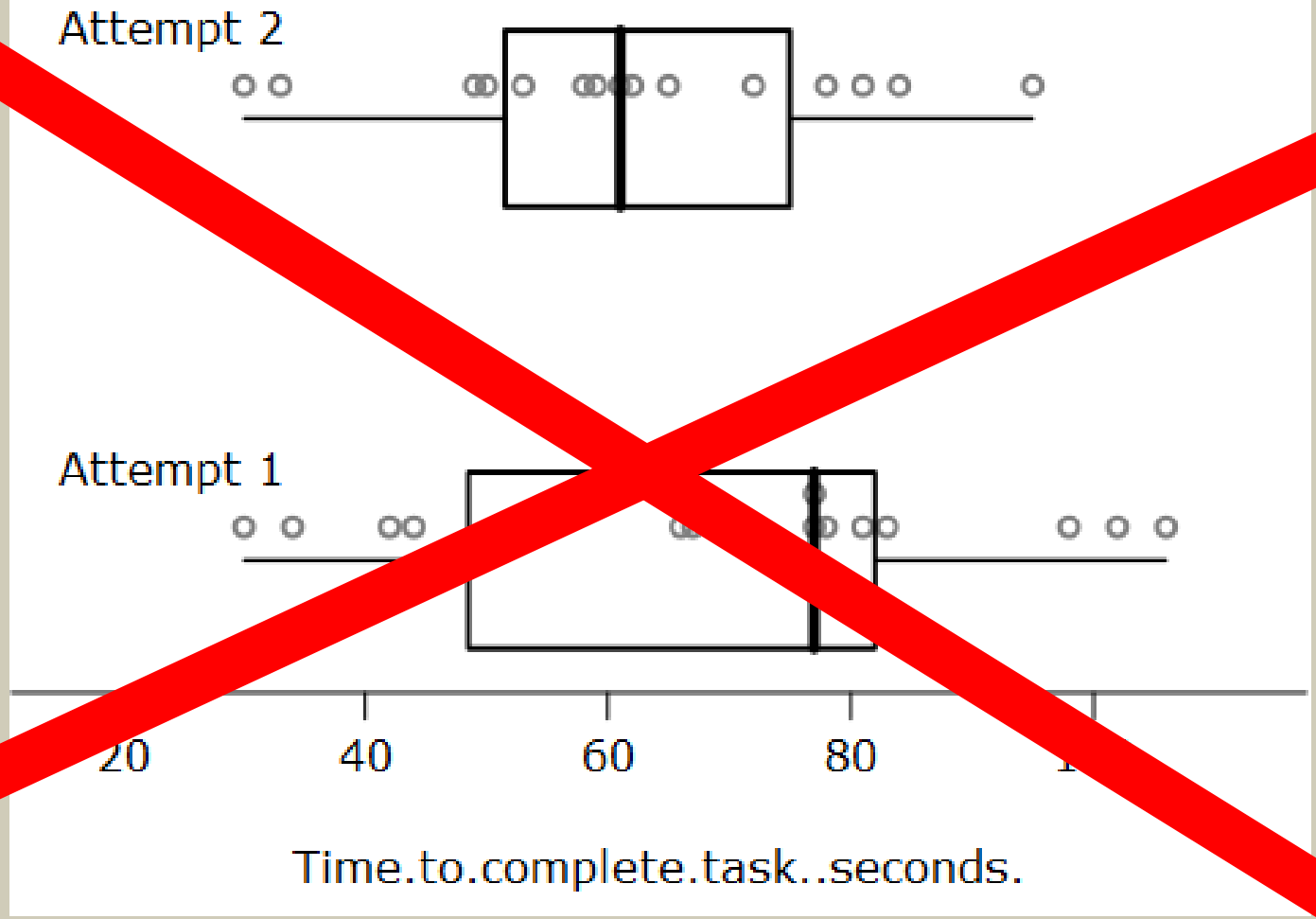
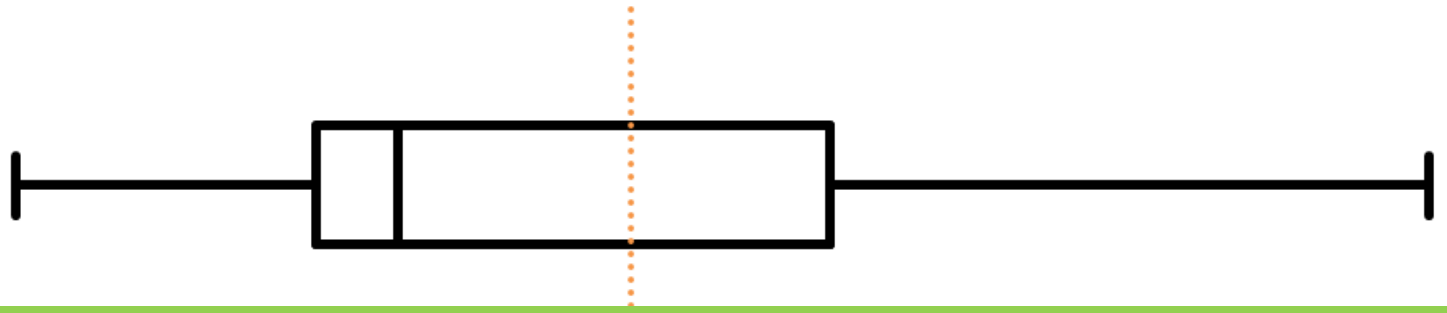


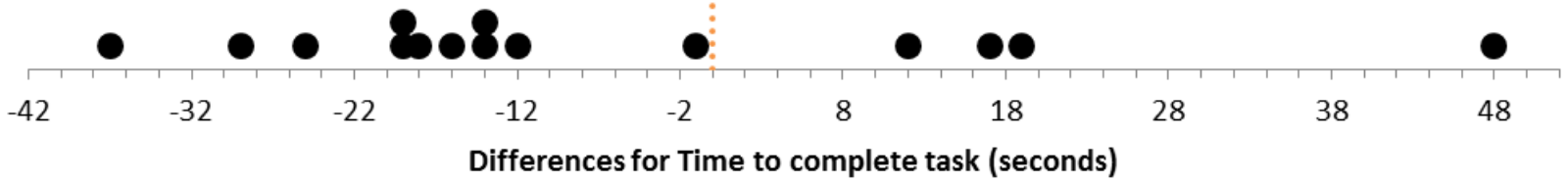
SOME RESULTS I PREPARED EARLIER ☺

Dot plot and box plot of differences

For the 15 differences measured, the mean is -7.2 and the standard deviation is 21.6.
The median is -14, the lower quartile is -19 and the upper quartile is 12.



I W How wide is the box compared to the tails? ilar are the differences?



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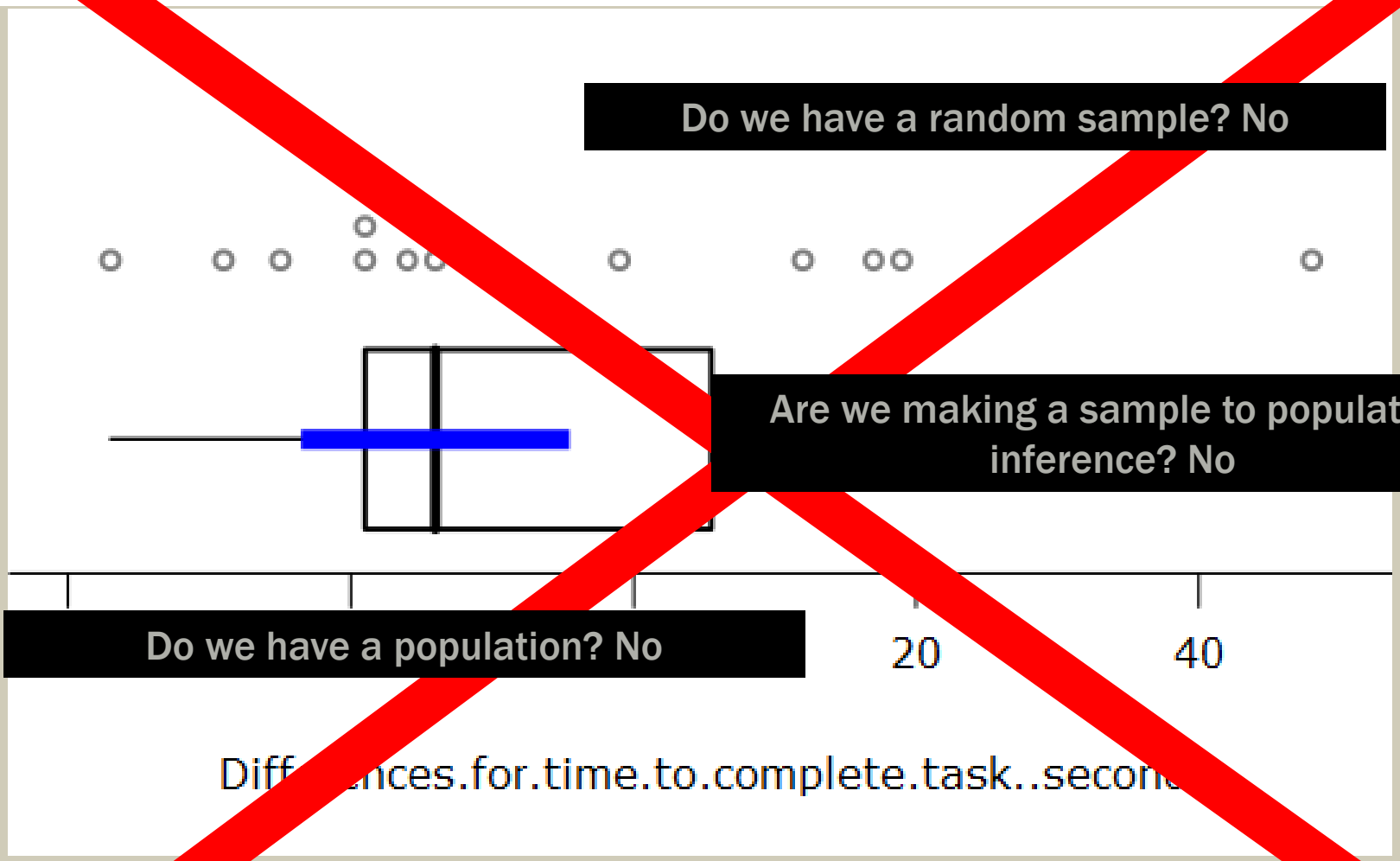

F's

The necessity of training farm hands for first class farms in the fatherly handling of farm livestock is foremost in the minds of effective farm owners. Since the forefathers of the farm owners trained the farm hands for first class farms in the fatherly handling of farm livestock, the farm owners feel they should carry on with the former family tradition of training farmhands of first class farms in the effective fatherly handling of farm live stock, however futile, because of their belief that it forms the basis of effective farm management efforts.

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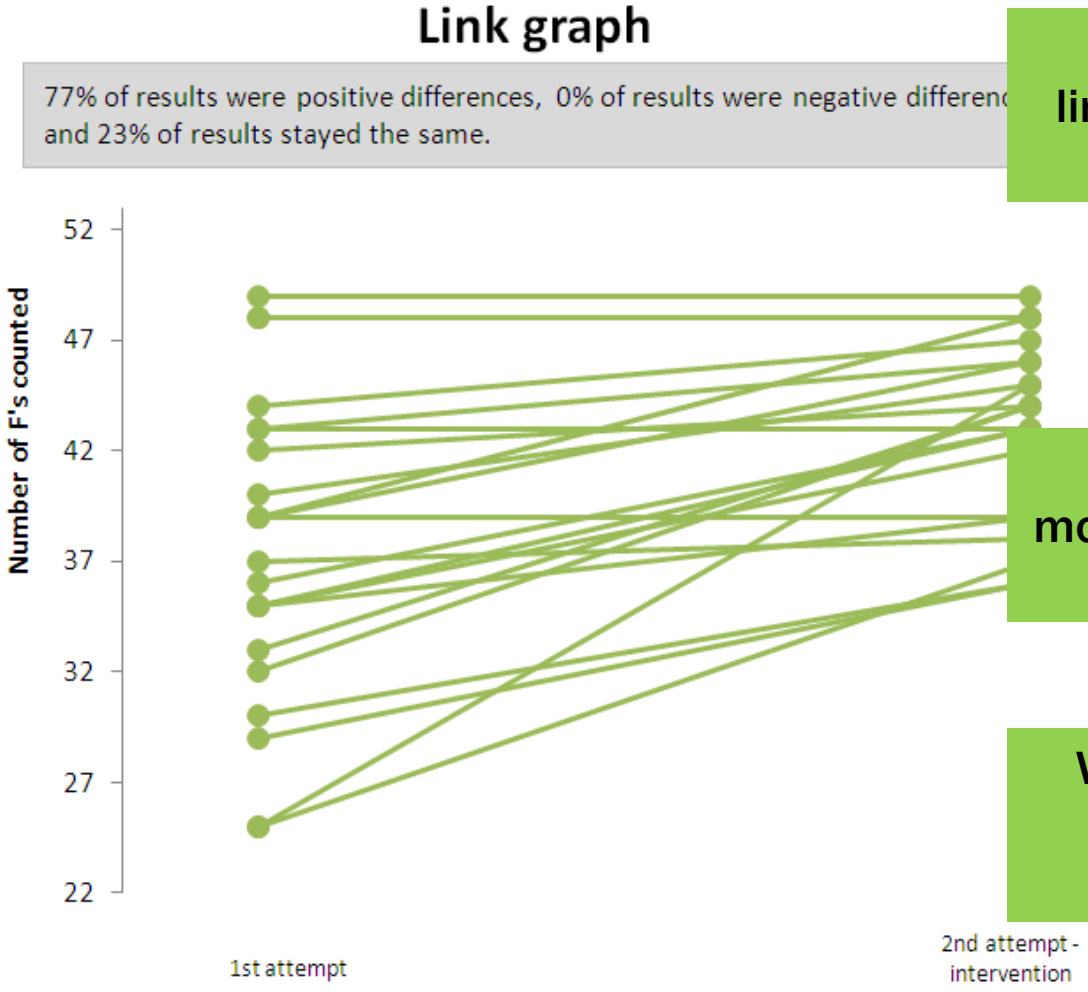

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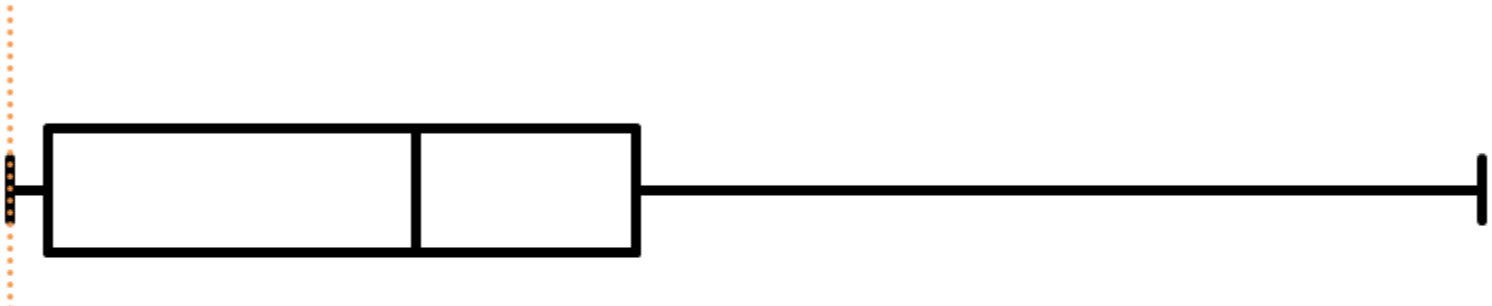
SOME RESULTS I PREPARED EARLIER ☺

Dot plot and box plot of differences

For the 22 differences measured, the mean is 5.6 and the standard deviation is 5.
The median is 5.5, the lower quartile is 0.5 and the upper quartile is 8.5.



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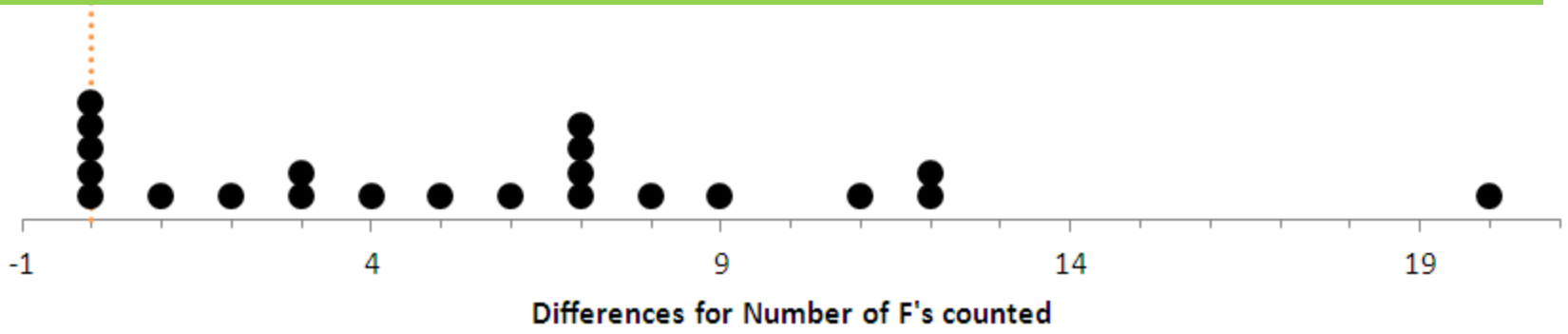
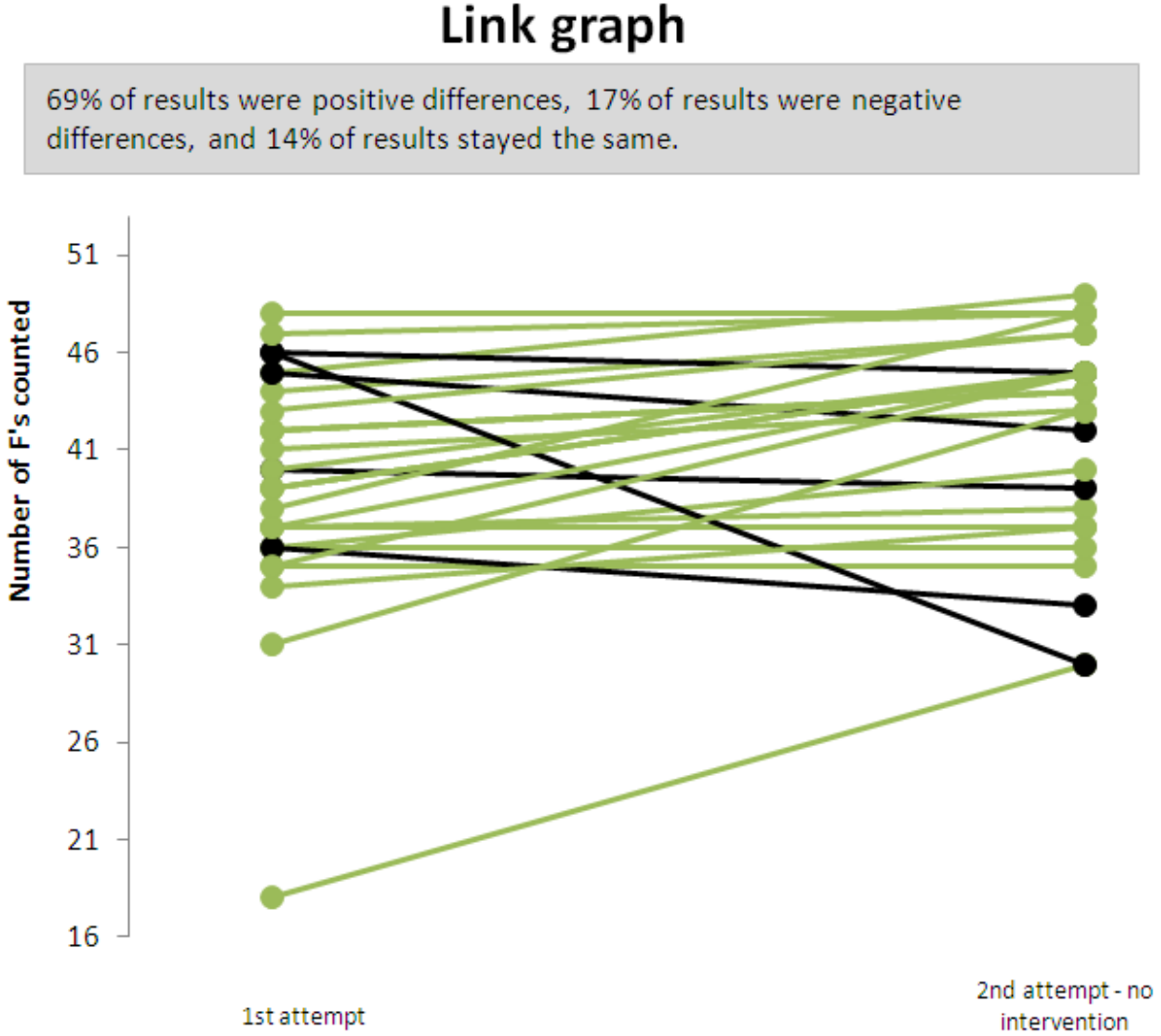


BUT WHAT IF WE'D NEVER INTERVENED?



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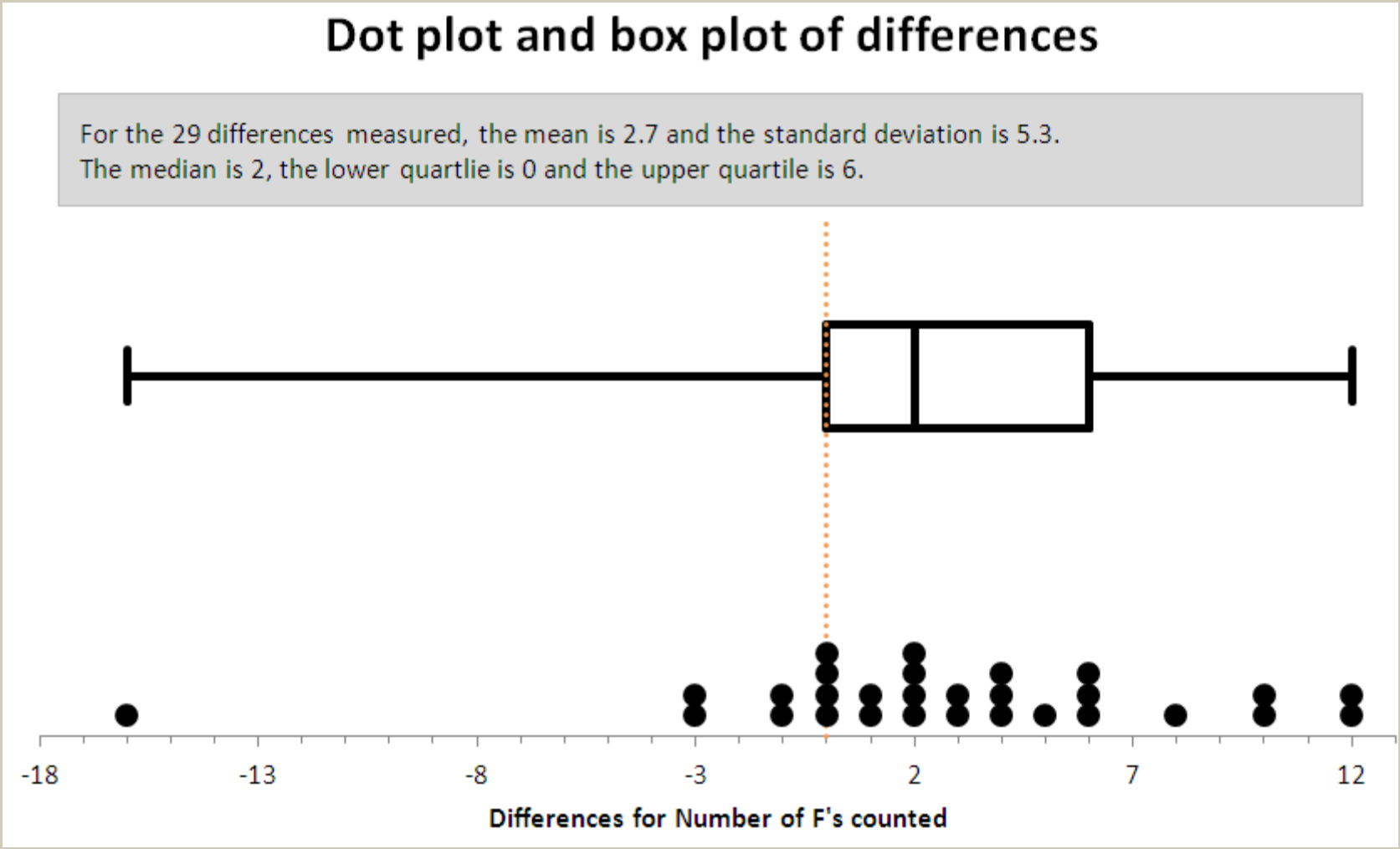

NUMBER LINKING

Myth busters video - ice swearing

Did they hold their hand in longer because of swearing OR because they already had done the activity before so knew what to expect??

They knew they were part of an experiment – how much did this push them?

HOW DO YOU ASSESS THIS?

- Students work in groups to develop problem and plan from background information and provided situation (8 per class)
- Students work in groups to conduct experiment and collect data
- Students work individually to write up the whole report (introduction, method, results, conclusion/discussion) in more depth

SUMMARY

ADVICE/IDEAS TO TAKE AWAY

- Focus on one type of experiment
- Experience and discuss lots of experiments
- Teach literacy - don't avoid it
- Stay WELL away from sampling-to-population ideas (variation or inferences)
- Focus on exploratory data analysis – what is the data telling you about the experiment
- Is the shift/spread from what you did or is there another explanation?