

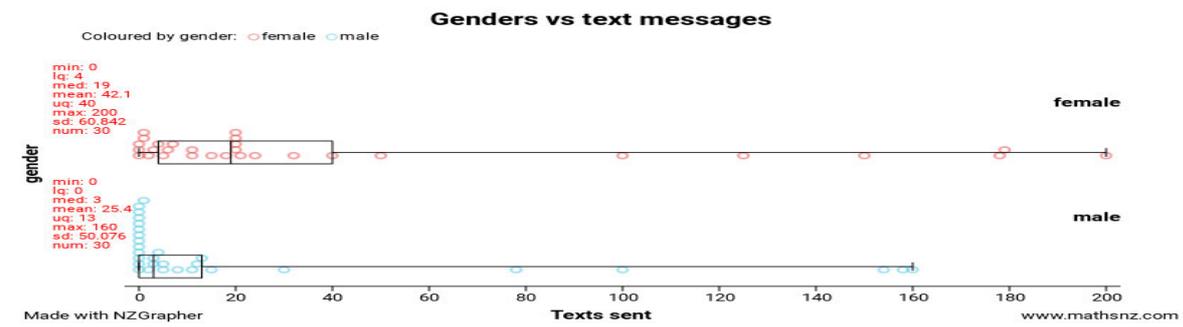
Problem

For the participants in the 2015 Census at School do females aged between 13 - 16 years tend to send more text messages per day than Boy aged 13 -16?

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Plan

I will be getting my data from Census at School NZ and it will be a sample and it is from 2015. In the sample there will be 30 females aged 13 – 16 years and 30 males aged 13 -16 years and I will be seeing if females tend to send more text messages than boys in New Zealand.



2

Analysis

<u>Summary Statistics</u>	<u>female</u>	<u>male</u>
Minimum	0	0
LQ	4	0
Median	19	3
UQ	40	13
Maximum	200	160
IQR	$40 - 4 = 36$	$13 - 0 = 13$
Range	$200 - 0 = 200$	$160 - 0 = 160$

3

Measure of centre

I noticed that females maximum is a little bit higher (200) than the Boys maximum (160). This means that females do message more than Boys on phone but only a little bit.

I also noticed that the median for females (19) is quite a bit higher than the median for boys (3). This could mean from my sample that females do tend to text message more than boys.

Measure of spread

I can see that the female IQR is more spread out 36 whereas the boys IQR is much more squashed 13. This means that the spread for females is sending text messages in a day is almost 3 times greater than the that of males. I also noticed that both the female and boys graphs have some values that do not match the rest of the data for example, the boys have a person aged 15 who sends 160 text messages and the females have a 15 year old who sends 200 text messages This to me seems a little excessive but I know that this could be correct.

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Measure of features

From my sample I noticed that 50% of boys data is crunched up between 0 and 3 this could be because there are 12 boys that do not text message at all. I can also see that there is a cluster of points around 0 – 4 for females this could be because 5 females that don't text at all the day before.

4

Conclusion

The females and boys boxes do overlap but the females median 19 goes past the boys upper quartile 13. So more than 50% of females box is outside that of the boys box. Looking at the graphs visually I can make the call that for the participants in the 2015 census at school yes females aged between 13-16 do tend to send more text messages per day than boys aged 13-16 from the participants of Census at School 2015.

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