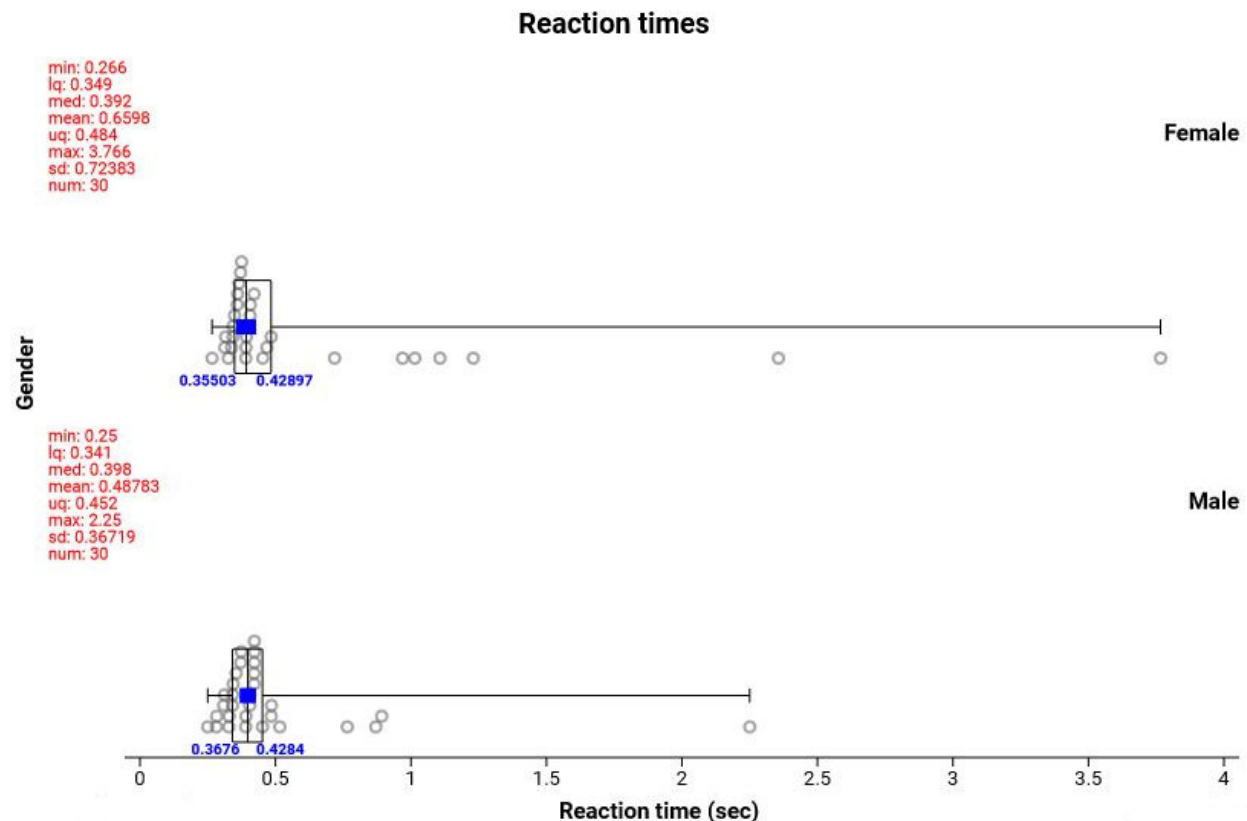


I wonder if the median reaction time of the year 11 – 13 males that completed the 2011 CensusAt School New Zealand is less than the median reaction time of the year 11 – 13 females that completed the 2011 CensusAt School New Zealand.

The reaction time data is the time it takes for the student to notice that the green button has turned red. The quicker a person is at noticing then the shorter reaction time they will have. I think the males will react in a shorter time than the females. The time I took to notice the green light had changed colour to red was 0.336 seconds.

I am going to get random samples of 30 males and 30 males to answer my question.



For the samples I got the reaction times for both groups are quite similar which surprised me because I thought the males would have shorter times and so there would be a shift to the left of their times. The median for the females is 0.392 seconds and for males 0.398 seconds. The female times are skewed to the right. There is slightly more spread in the middle 50% of the times for the females. The iqr for the female times is 0.135 sec and for males it is 0.111 sec.

If I did the sampling again I would probably get different data and so would get different times for the median and iqr etc. The graphs would therefore be different.

The median reaction time for the year 11 – 13 females in the 2011 CensusAt School New Zealand is likely to be between 0.355 sec and 0.429 sec and the median reaction time for the year 11 – 13 males in the 2011 CensusAt School New Zealand is likely to be between 0.368 sec and 0.428 sec. The confidence intervals for the median reaction times overlap so I am not able to say that the median reaction time for the year 11 – 13 males in the 2011 CensusAt School New Zealand is less than the median reaction time for the year 11 – 13 males in the 2011 CensusAt School New Zealand.

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