Do Males and Females Have the Same Reaction Time?

Clingan, Savannah (School: Hays High School)

While driving, mere seconds are the difference between life and death. These seconds are your reaction time. Teenage drivers are too relaxed at the wheel. They believe they are driving safely while they are on their phone, talking, or eating. This study is a simulation of such events. Students evaluated their reaction time using a meterstick and calculator. After running three trials with no distractions, they performed three more per the following distraction: reading text message, sending text message, talking to a person, and eating/drinking (non-alcoholic). Once the students finished the trials, they used the reaction time formula to find their time. My teacher sent all the information without names. She labelled the papers 'F' or 'M' for their gender paired with a number (Ex. F3). I put the information into a graph for comparison. It showed males were slightly faster than females while not distracted, reading a text, talking to a person, and eating/drinking. However, I had received 16 Female papers and only 14 Male. I conducted a Student T-Test to see if there was a difference between the genders or if males just had less participants. For the T-Test, I set 'p' as $p<0.05$. The null hypothesis was there was no difference, and the alternate hypothesis was there was a difference. The results showed that not distracted, reading a text, and sending a text are under 0.05. In this case, the data accepted the alternate hypothesis and rejected the null. The categories of talking to a person and eating/drinking were over 0.05, meaning the data accepted null hypothesis and rejected the alternate. In conclusion, males and females have the same reaction time while talking to a person and eating/drinking, but males are faster when undistracted, reading text, and sending a text.