

3. You are interested in estimating the mean number of parties attended by BC students in a month. A random sample of 16 students is selected and you find the sample mean to be $\bar{X} = 7.2$ with a sample standard deviation of $s=1.6$. Set the 90% confidence interval for the mean. Interpret the interval in words.

4. Using the General Social Survey 2012 data (gss2012.dta), calculate the mean for the number of hours respondents watched TV per week (tvhours) as well as the 90% confidence interval for this mean. Write down your results here, both as a formal statement with the associated probability and in words (remember that since this is a survey based on a representative sample of U.S. population, we can make statements about that population). Don't forget to print your Stata output and submit it with this assignment sheet!

The sample mean is: $\frac{\text{number}}{\text{units}}$

Confidence interval:

In words:

5. The following graph describes the average number of authors for published journal articles that are using four different types of methods – quantitative, qualitative, triangulation, and other. Based on the error bars in the graph, what can we conclude (with 95% confidence) about the differences between the average number of authors in these four types of articles? In your response, make sure to compare each pair (six comparisons total) and state for each whether, on the basis of this figure, we can be 95% confident that those two types of articles are different in terms of the average number of authors.

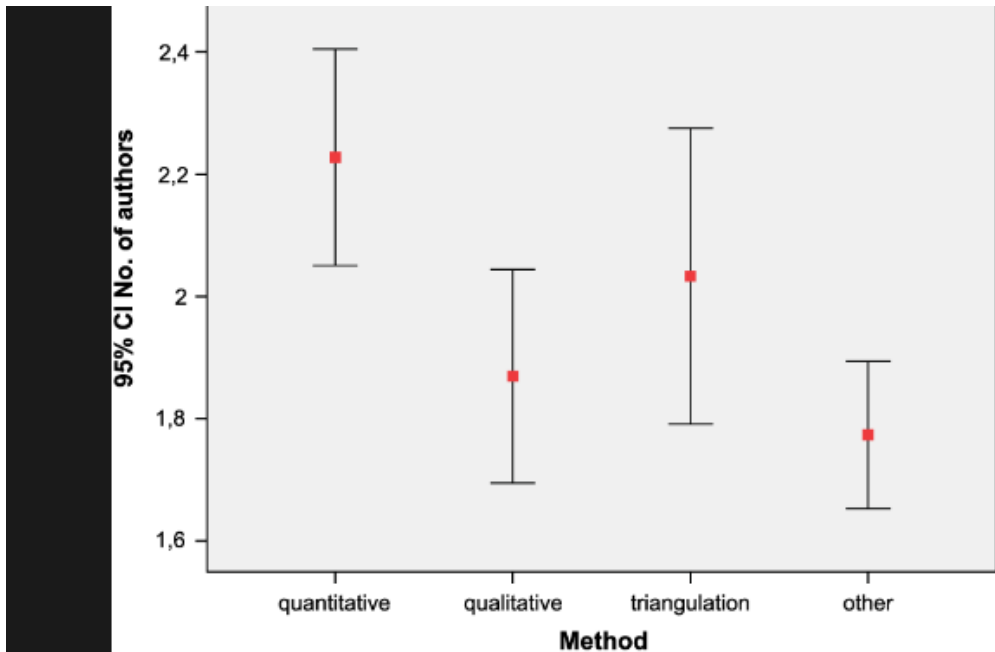


Figure 3. Error bar graph for research methods (95% confidence interval, n = 695).