Simulated data generated from Chi-square distribution is more than 2 time faster than the simulated data generated from the Normal distribution. This is because using the data generated from the Normal distribution has to be re-fitted back into the ANOVA model in every iteration. As for the data generated from the Chi-square distribution, the simulated data is on the mean squares of the ANOVA table; hence, the data does not need to be fitted into ANOVA every time.

2 min for 10000 iterations using the Chi-square distribution.

5.6 min for 10000 iterations using the Normal distribution.