

Code ▾

Brad Pitt vs. Nicholas Cage

The aim here is compare IMDB ratings of movies with Brad Pitt or Nicholas cage to see if the former rate better than the latter. We are going for this to first import the data, run a one tail t-test, interpret the results and draw a conclusion.

Step 1: Import Data

Hide

```
brad_pitt <- read.csv("../Importable Data/brad_pitt.csv")
nicholas_cage <- read.csv("../Importable Data/nicholas_cage.csv")
```

Step 2: Run t-test

Hide

```
print(t.test(brad_pitt$score, nicholas_cage$score, alternative = 'greater'))
```

Welch Two Sample t-test

```
data: brad_pitt$score and nicholas_cage$score
t = 4.0964, df = 53.958, p-value = 7.087e-05
alternative hypothesis: true difference in means is greater than 0
95 percent confidence interval:
 0.7308574      Inf
sample estimates:
mean of x mean of y
 7.028571  5.792857
```

Step 3: Interpretation

We have a significant t-test result as $p < 0.05$ ($p = 7.087e-05$). The mean difference is $7.028571 - 5.792857 = 1.235714$. From week 4 document Calculating_Effect_Size.xlsx (included here as well) we can compute the effect size. With t-value of 4.0964, $n_1=28$ and $n_2=28$ we get Hedge's g of 1.079532547. This means there is a big effect size which is in line with the prediction we made earlier. We have a power of 99% here.

Step 4: Conclusion

We can conclude that based on the data observed that people rate movies with Brad Pitt with a higher score than movies with Nicholas Cage.