AsPredicted registration:

1. Have any data been collected for this study already? (optional)
   - Yes, we have the data already collected.

2. What's the main question being asked or hypothesis being tested in this study? (optional)

Hypothesis: “There are no significant changes in the quality of war films before and after 2010 as measured by their rating on the IMDB site.”

3. Describe the key dependent variable(s) specifying how they will be measured. (optional)

I Predict that there is no difference in quality between war movies before and after 2010 as measured by IMDB ratings. I will do a power analysis for an equivalent test. I want to reject my SESOI with confidence so I will setup 90% my test with power and alpha = 5% and want to detect effects greater than Cohen’s d = 0.2 (small effects).

We have collected a dataset with films names, tags, year released and user ratings. Thats all we need to perform our study.

4. How many and which conditions will participants be assigned to? (optional)

The power analysis estimates that the sample size we need to show de difference in ratings of war films before and after 2010 is smaller than Cohen’s d= 0.2 (assuming the true effect size is 0, alpha = 5% and power at 90%). is 542 samples per group.

```
> powerTOSTtwo(alpha = 0.05, statistical_power = 0.9, low_eqbound_d = -0.2, high_eqbound_d =0.2)

The required sample size to achieve 90 % power with equivalence bounds of -0.2 and 0.2 is 542 per group, or 1084 in total.

[1] 541.1087
```

5. Specify exactly which analyses you will conduct to examine the main question/hypothesis. (optional)

I will perform an equivalence testing using Cohen’s d=0.2 as equivalence bounds (- 0.2 and +0.2) along with alpha = 0.05 and power = 0.90.

6. Any secondary analyses? (optional)

None

7. How many observations will be collected or what will determine the sample size? No need to justify decision, but be precise about exactly how the number will be determined. (optional)

Justified at question 4 and repeated below:
The power analysis estimates that the sample size we need to show de difference in ratings of war films before and after 2010 is smaller than Cohen's d= 0.2 (assuming the true effect size is 0, alpha = 5% and power at 90%). is 542 samples per group.

> powerTOSTtwo(alpha = 0.05, statistical_power = 0.9, low_eqbound_d = -0.2, high_eqbound_d =0.2)

The required sample size to achieve 90 % power with equivalence bounds of -0.2 and 0.2 is 542 per group, or 1084 in total.

[1] 541.1087

8. Anything else you would like to pre-register? (e.g., data exclusions, variables collected for exploratory purposes, unusual analyses planned?) (optional)

None.

Dataset used: https://www.kaggle.com/ashirwadsangwan/imdb-dataset

title.basics.tsv.gz - Contains the following information for titles

title.ratings.tsv.gz – Contains the IMDb rating and votes information for titles