Deliverable 1

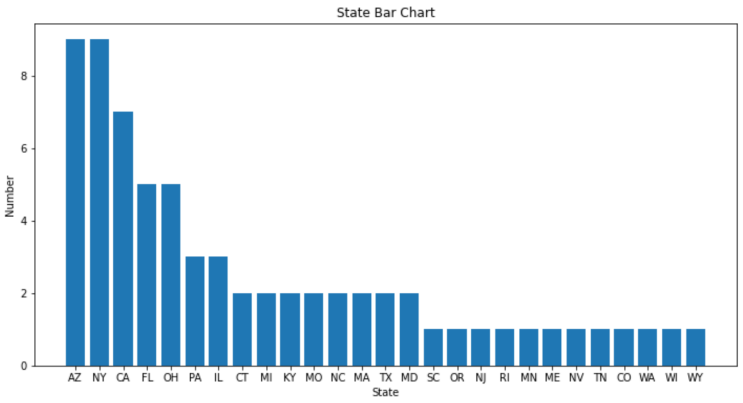
Team 2

Name: Shang Lyu

Task: Analyze demographic data for each columns in dataset

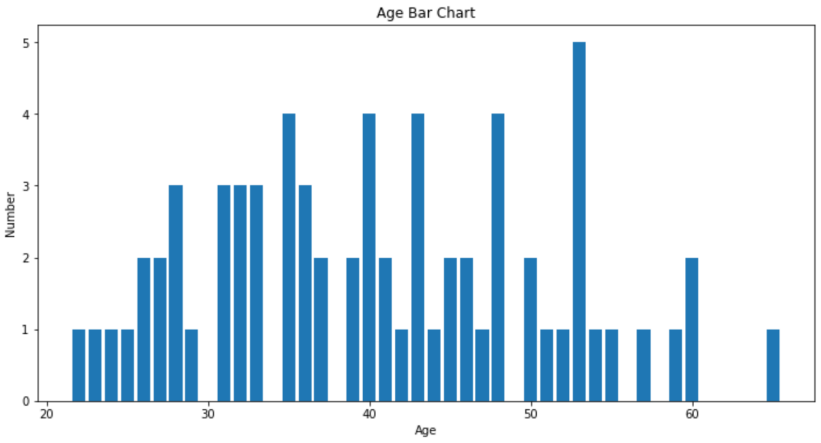
Answer:

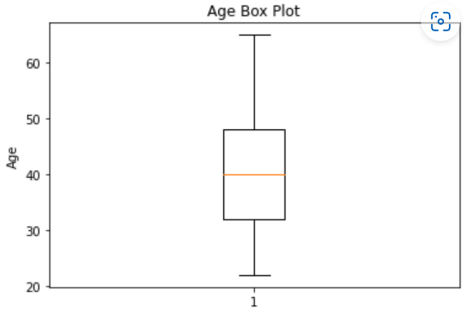
1. State



Analysis: As we can observe in the bar chart above, participants from Arizona and New York states have the highest number of 9, followed by participants from California state.

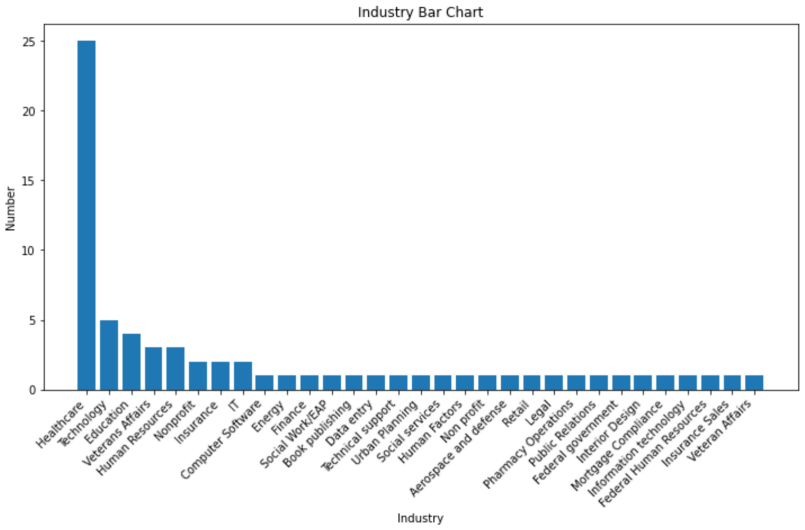
2. Age





Analysis: The bar chart of age above shows that people aged from 30-55 are the main participants, and the box plot shows that the median age of participants is 40.

3. Industry



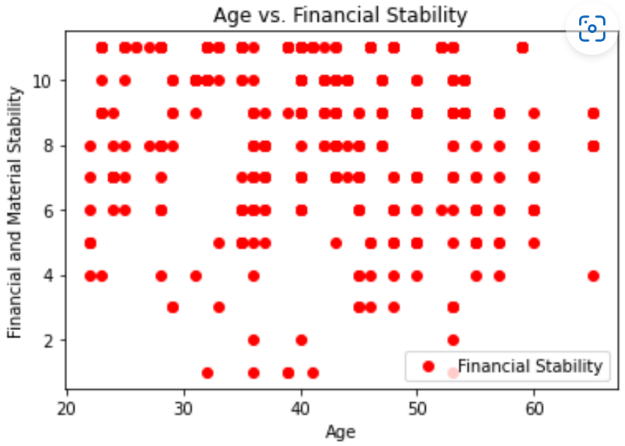
Analysis: We can see in the bar chart that the number of participants from Health Care dominate, which is 20 more than the second one. Possibly indicates the fact that people from the Health Care industry are more willing to participate in such research.

Hypothesis*:* Participants' age will negatively correlate with financial and material stability (the last two questions on the Flourishing Scale)

Answer: Prove

Explain:

```
Correlation between age and financial stability: -0.12, p-value: 0.01
```



Above is the result after executing the code. Notice that ‘pearsonr’ produces the correlation coefficient (r) of -0.12, which indicates that there is a negative correlation between age and financial and material stability. Therefore the data proves the hypothesis that as age increases, financial stability tends to decrease. However, the p-value (0.01) is less than the conventional alpha level of 0.05, indicating that the correlation is statistically significant. It is important to keep in mind that there might be other factors that affect financial stability other than age.

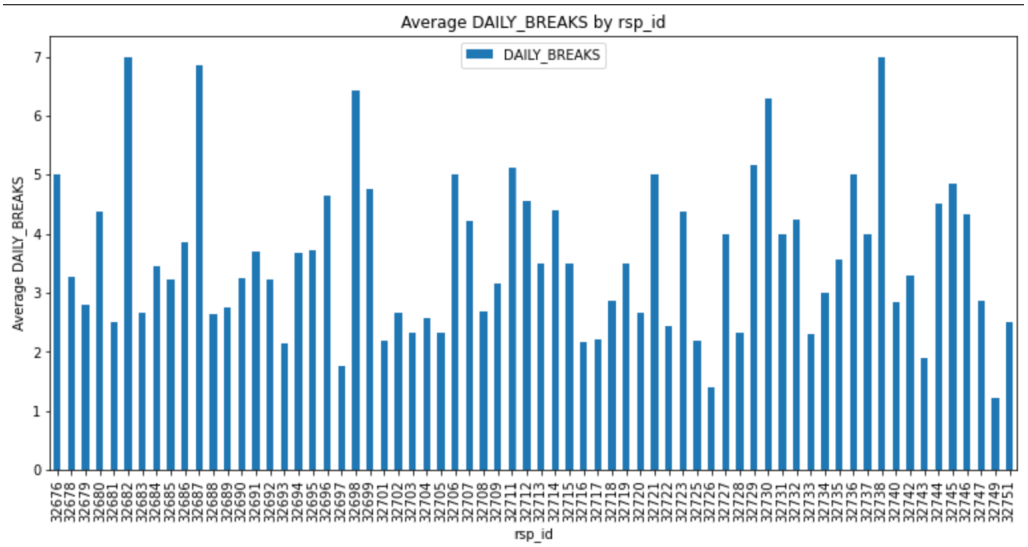
Name: Jeya Varshini Bharath

Task: Analyze Extract and analyse the 1 month data and correlate florence score with the number of breaks taken.

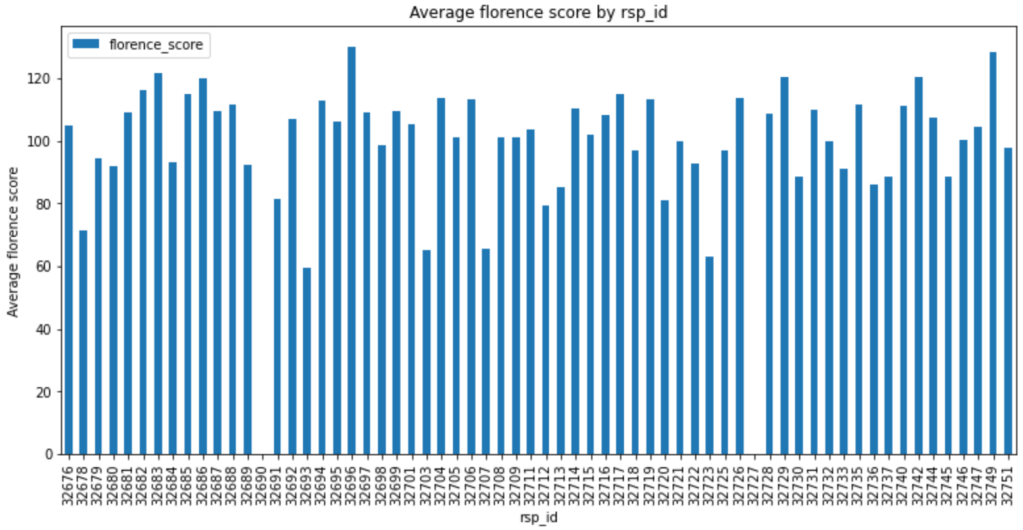
Key Question: Does the number of breaks taken have any relation to the florence score?

Answer:

Analysed from the 1MonthData.ipynb code, the graph below shows the number of breaks taken daily by each person.



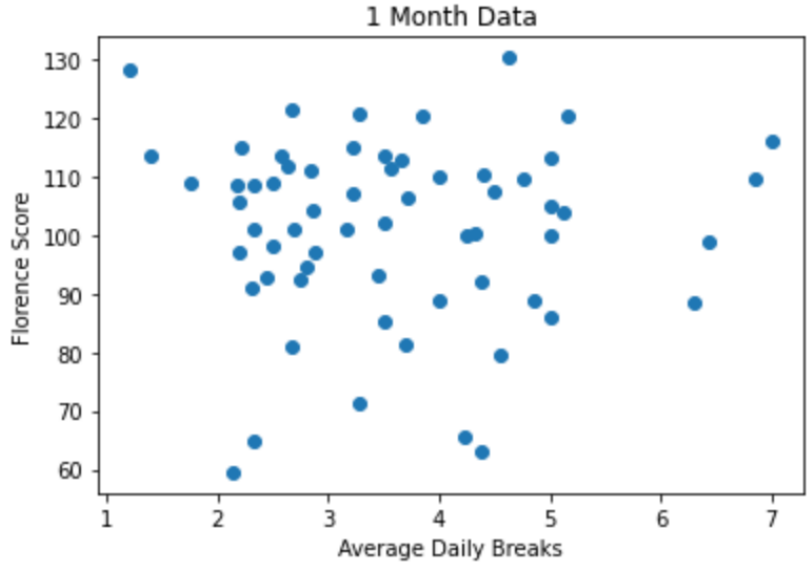
The graph below shows the florence score of each person.



***Hypothesis**:* Participants' daily breaks will positively correlate with florence score.

Proof:

The final scatter plot shows the combined plot of both the florence score as well as the daily breaks taken by a person.



Analysis: As we can see from the plot, people who took breaks in the range from 2-5 tend to have a higher florence score and overall satisfaction and contedness in life.

The florence score was calculated as the sum of Life satisfaction, Happiness, Physical Health, Mental Health, Worthwhile, Purpose, Delayed happiness, Promote good, Content relationships, satisfying relationships, Living expenses and Food housing.

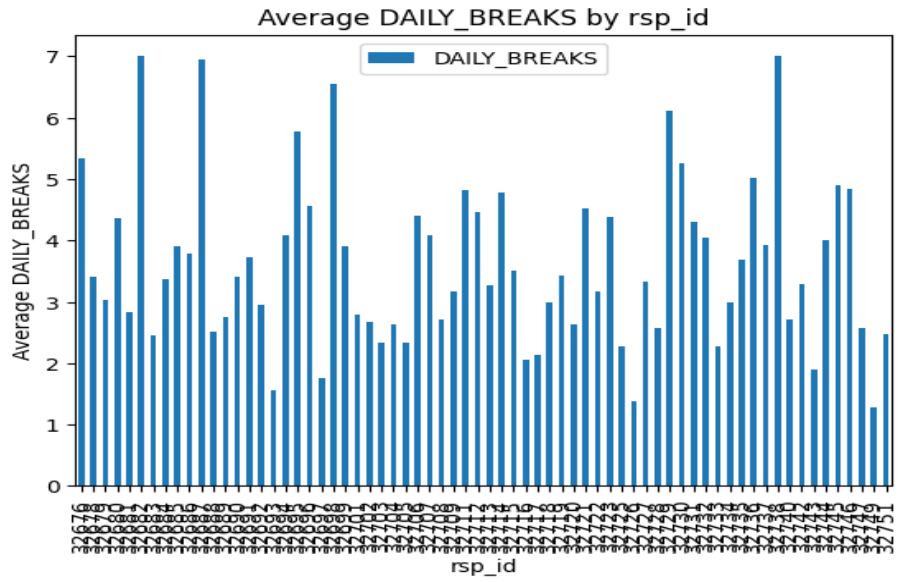
Name: Dhun Jitendakumar Jayswal

Task: Analyze Extract and analyze the 3 months data and correlate Florence score with the number of breaks taken.

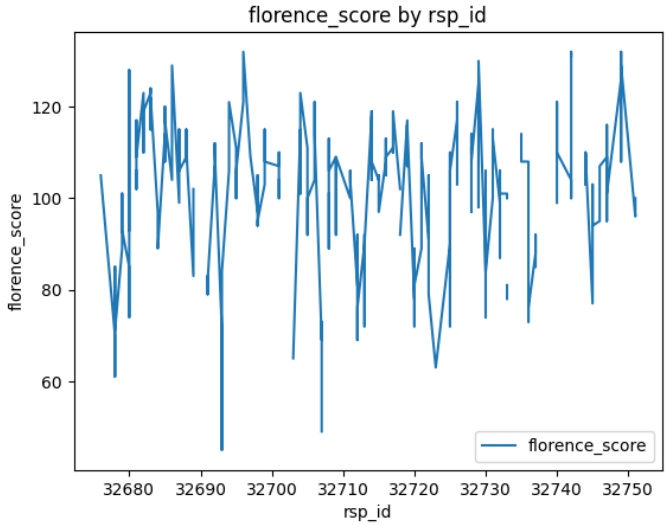
Key Question: Does the number of breaks taken have any relation to the Florence score?

Answer:

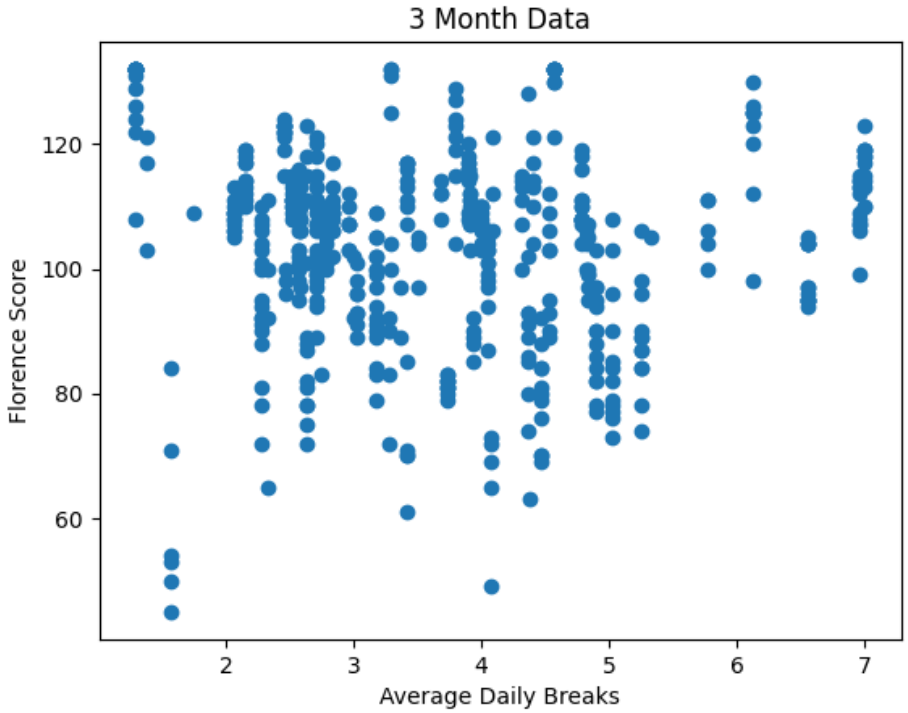
Analysed from the 3MonthData.ipynb code, the graph below shows the number of breaks taken daily by each person.

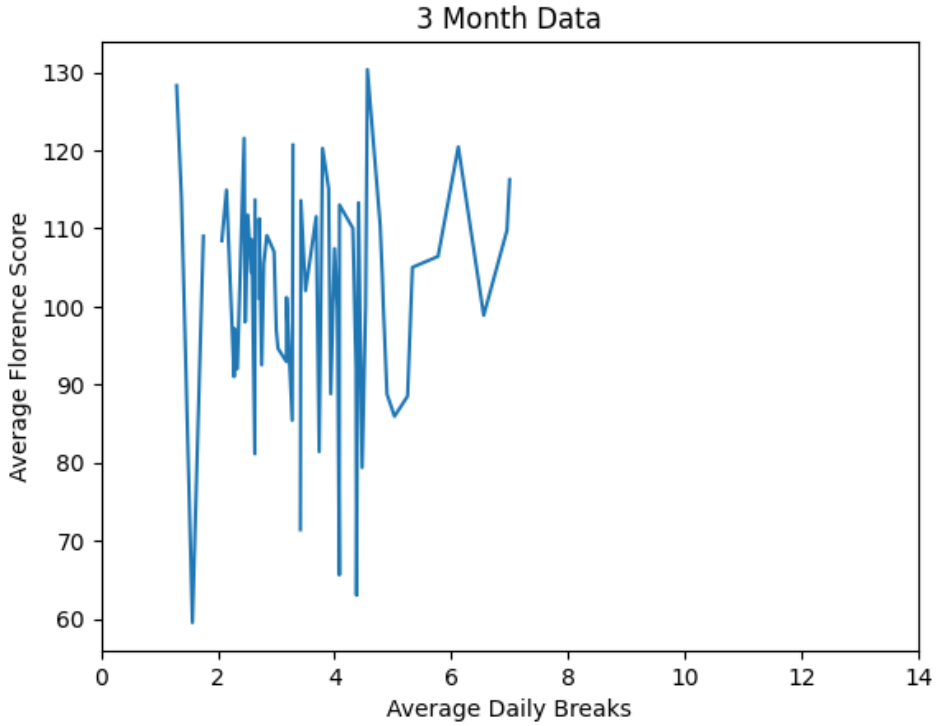


The graph below shows the florence score for each person.



The final scatter plot and line graph shows the combined plot of both the Florence score as well as the daily breaks taken by a person.





Analysis: The above graph of 3 months data shows different plotting than a one month data but in all it is very similar, different because there's a lot of data under consideration and similar because it gives the same results.here the Florence score is more for people who took 2-5 breaks in between the work.

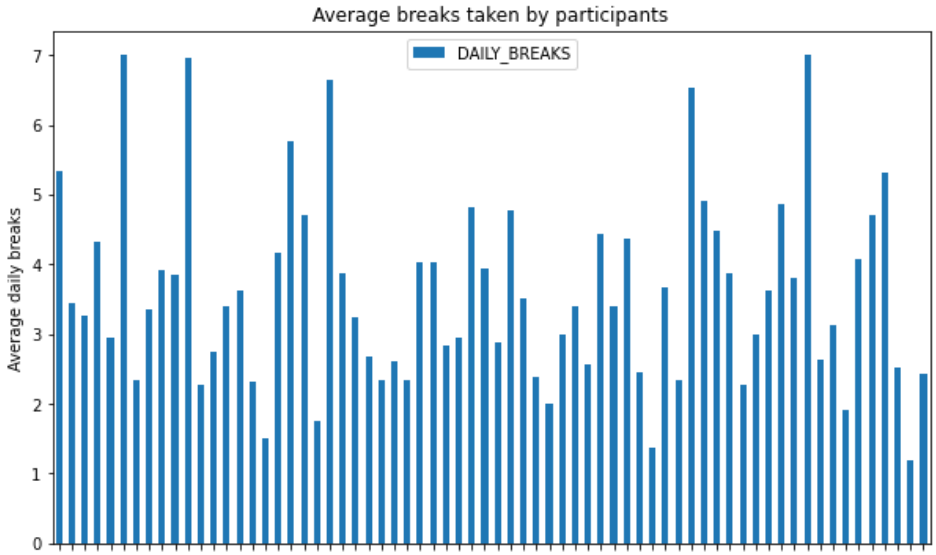
Name: Navya Jain

Task: Analyze Extract and analyze the 6 months data and correlate Florence score with the number of breaks taken.

Key Question: Does the number of breaks taken have any relation to the Florence score?

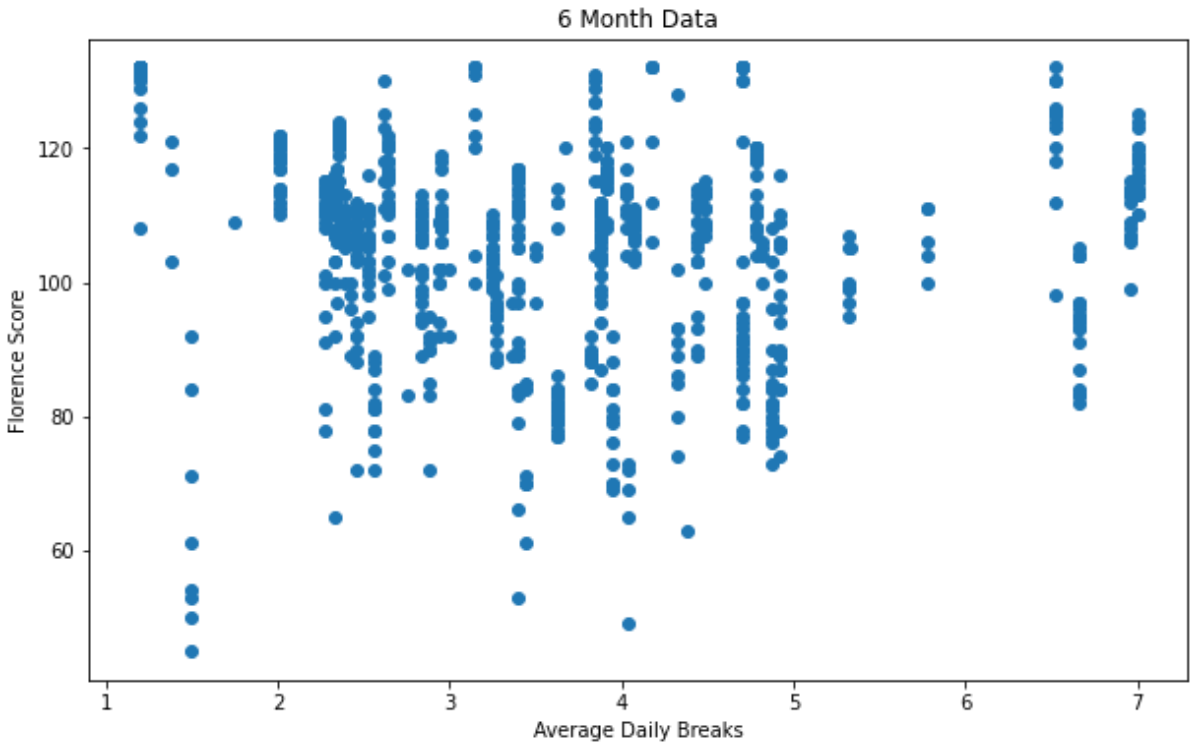
Answer:

Upon analyzing the data collected over a period of 6 months, a bar chart was created to visualize the average number of breaks a person took.



Analysis: This graph gives a good estimate of the number of breaks taken by a person. It is least 1 for each person, and it seems like most people took 2 breaks on average while working over a spam of 6 months.

The final scatter plot and line graph shows the combined plot of both the Florence score as well as the daily breaks taken by a person.



Analysis: The graph produced using data from 6 months follow similar patterns to the previous graphs. Based on both the plots, Florence score is higher for people who took more number of breaks proving the hypothesis to be true so far.