A Survey Pour Toi

Correlation vs Causation

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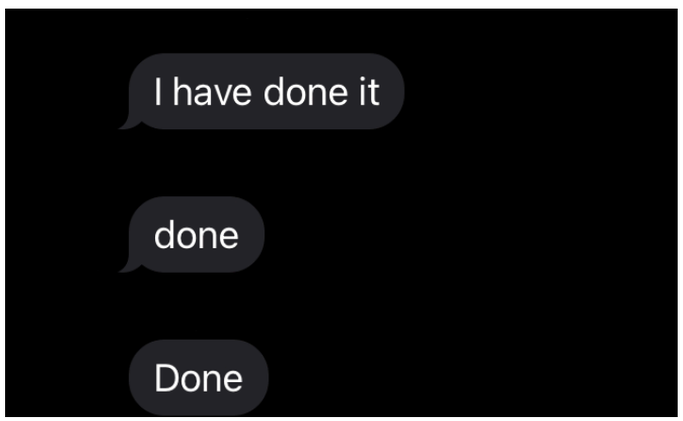
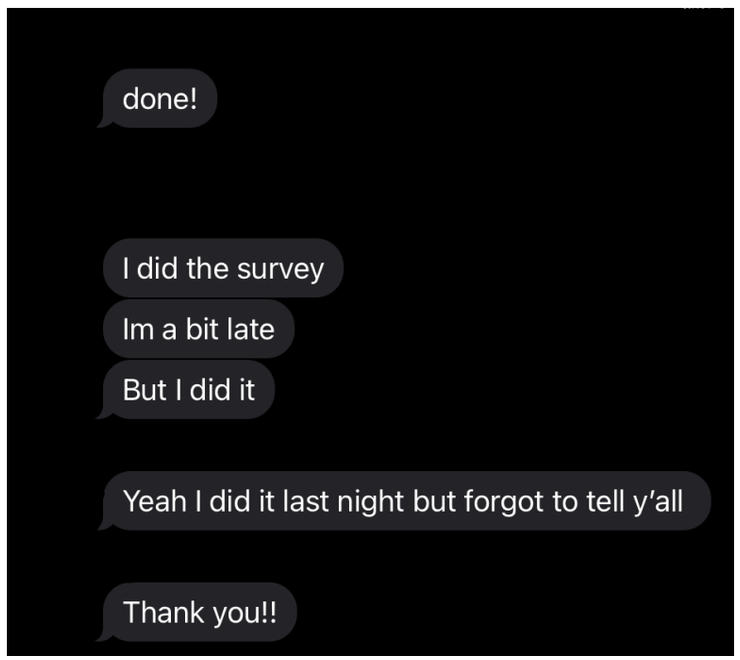
Introduction

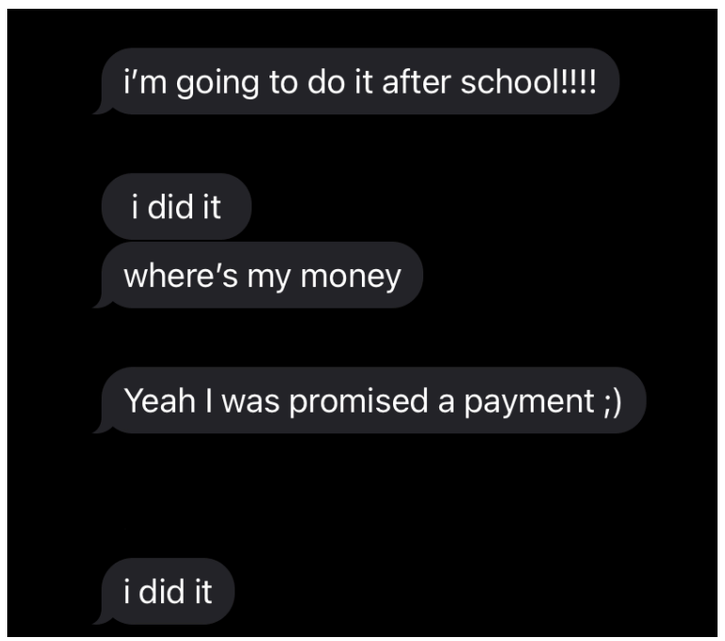
Hello! Welcome to our short presentation. We were super excited to work together and try to produce the best correlation and causation project that we could.
Now, enjoy our very ✨snazzy✨ presentation
Presented by; us.

Survey audience

Our sample was a convenience sample because all of the people that we sent our survey to were good friends of ours and easily accessible to us. We wanted to do something a bit extra with our survey audience. We took an equal amount of PLP 9 students and non-PLP 9 students to hopefully see if there was any difference between the two populations. And most of the time there was not a very noticeable difference between the two. So we ended up seeing if combining the data from the two samples would help smooth out the graphs, unfortunately it made a very little difference to most of the correlations. It was still an interesting experiment.







Our survey questions

1. How many couches do you have in your home?
2. How many dinner parties do you host in a year?
3. How many countries have you been to?
4. How many televisions do you have in your home?
5. How many languages can you count to 10 or say a complete sentence in?
6. How often do you eat fast food every week?
7. How often do you drink caf. beverages per week?
8. How long does it take you to get out of bed in the morning?
9. How often do you work out every week?
10. What time would you say you loose energy at in the day?
11. What time do you go to bed?
12. How often you eat cereal in a week
13. How often you tell your parent that you love them in a week?
14. How often do you accidentally injure yourself per week? I.e. stubbing toes, bumping into tables, turning corners too quick and hitting your shoulders, etc.
15. How many times a week do you vacuum/clean a part of the house per week?
16. How many tattoos do you want to get when you are older?

We categorized our survey questions into the following three groups:

- Things influenced by wealth

- Things affected by motivation

- Miscellaneous

Our survey questions

- Wealth - Motivation - Misc.

1. How many couches do you have in your home?
2. How many dinner parties do you host in a year?
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15. How many times a week do you vacuum/clean a part of the house per week?
16. How many tattoos do you want to get when you are older?

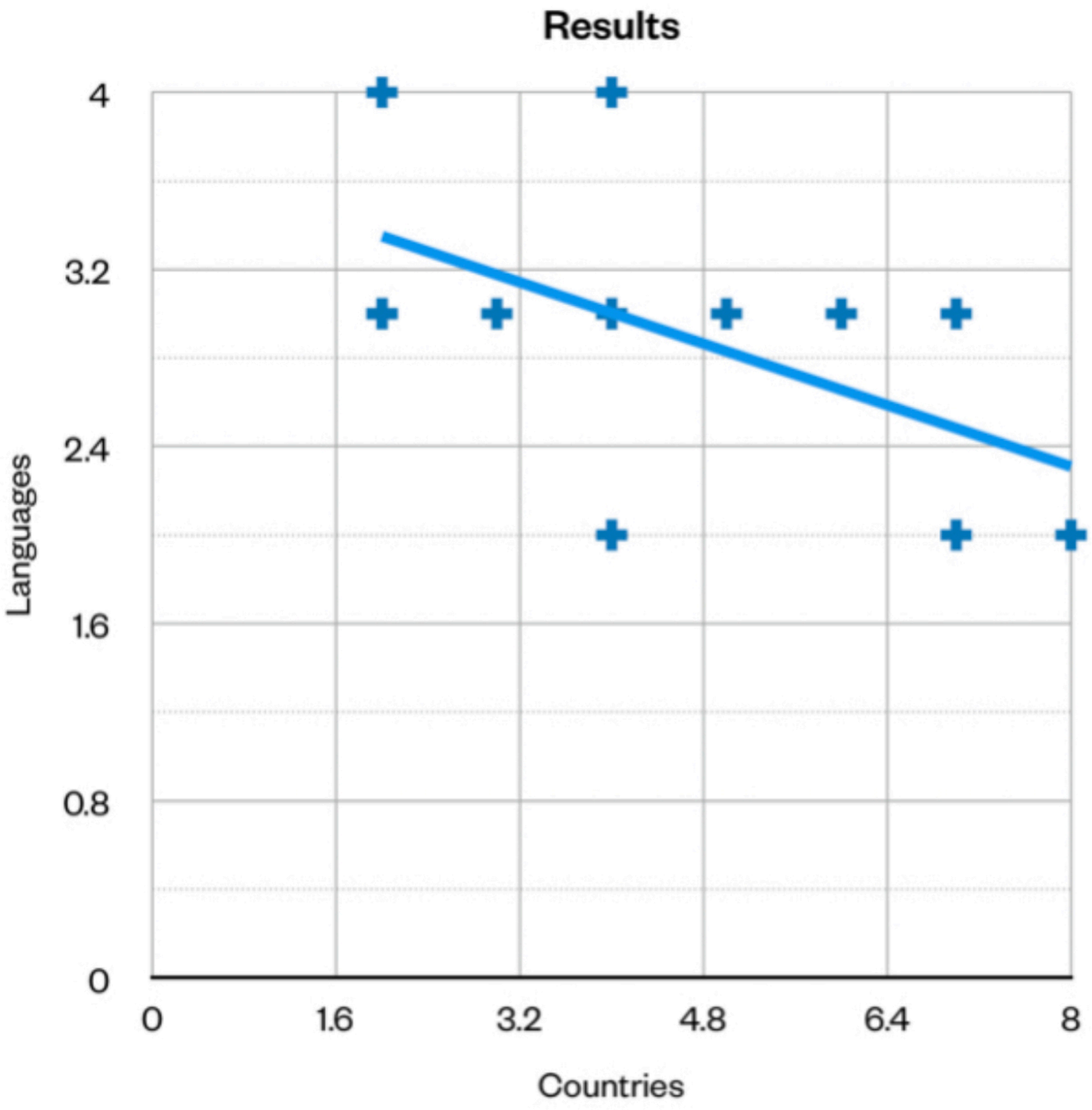
Our Results

The results of our survey were not as strong as we hoped they would be. You might think that the more countries a person has been to the more likely they are to be able to speak a sentence or count to 10 in more languages. Turns out that for the people we surveyed, it is almost the opposite. That was the case for most of the correlations that we put together with the data that we collected from the survey.

PLP

Data-1

Countries	Languages
4.0	2.0
2.0	3.0
8.0	2.0
5.0	3.0
2.0	4.0
7.0	3.0
4.0	3.0
2.0	3.0
4.0	3.0
7.0	2.0
4.0	4.0
3.0	3.0
6.0	3.0

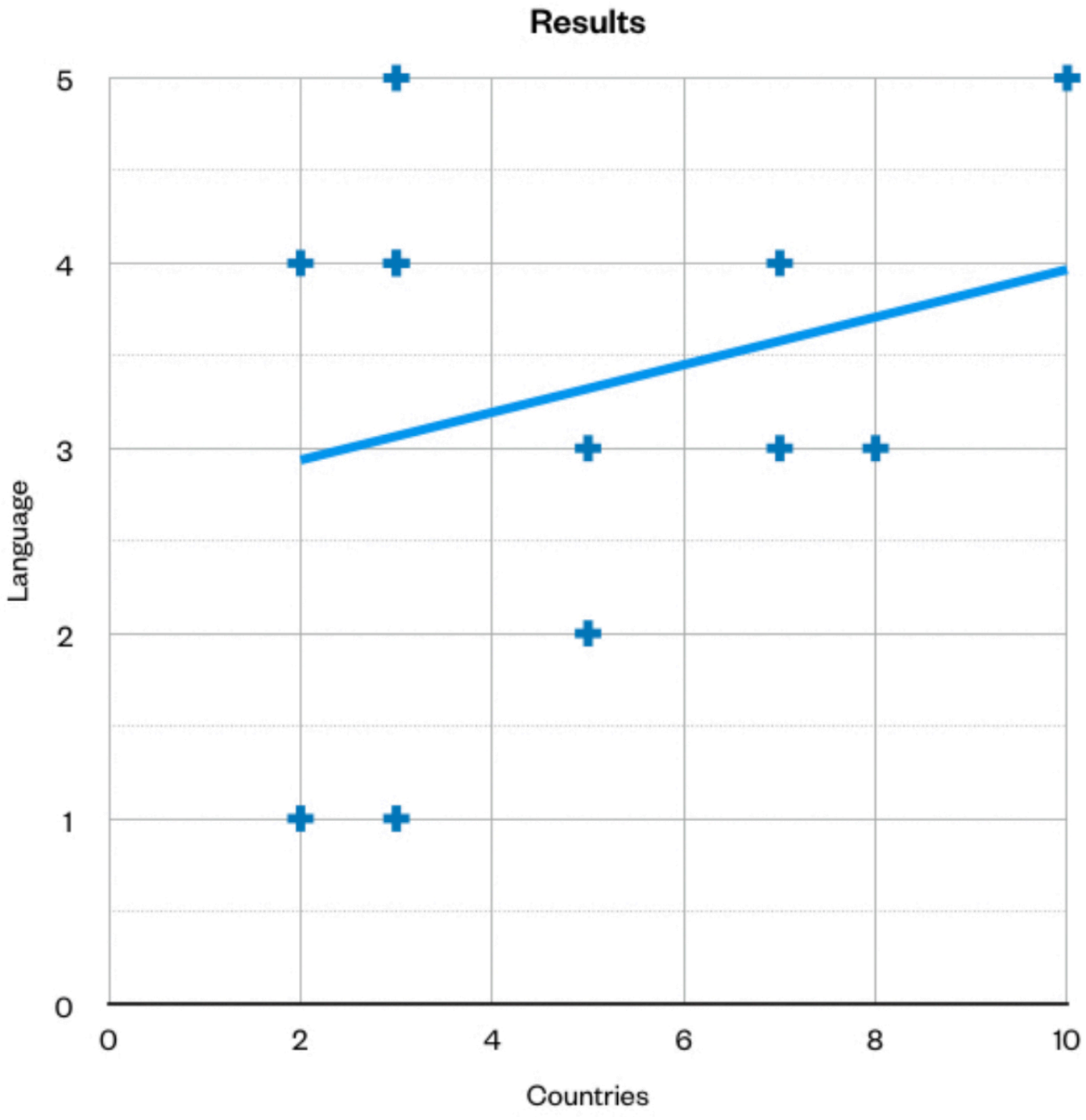


Moderate negative correlation

Non-PLP

Data

Countries	Languages
10.0	5.0
5.0	3.0
5.0	3.0
8.0	3.0
3.0	5.0
2.0	4.0
7.0	4.0
7.0	3.0
3.0	4.0
2.0	1.0
3.0	1.0
5.0	2.0
3.0	4.0
3.0	4.0

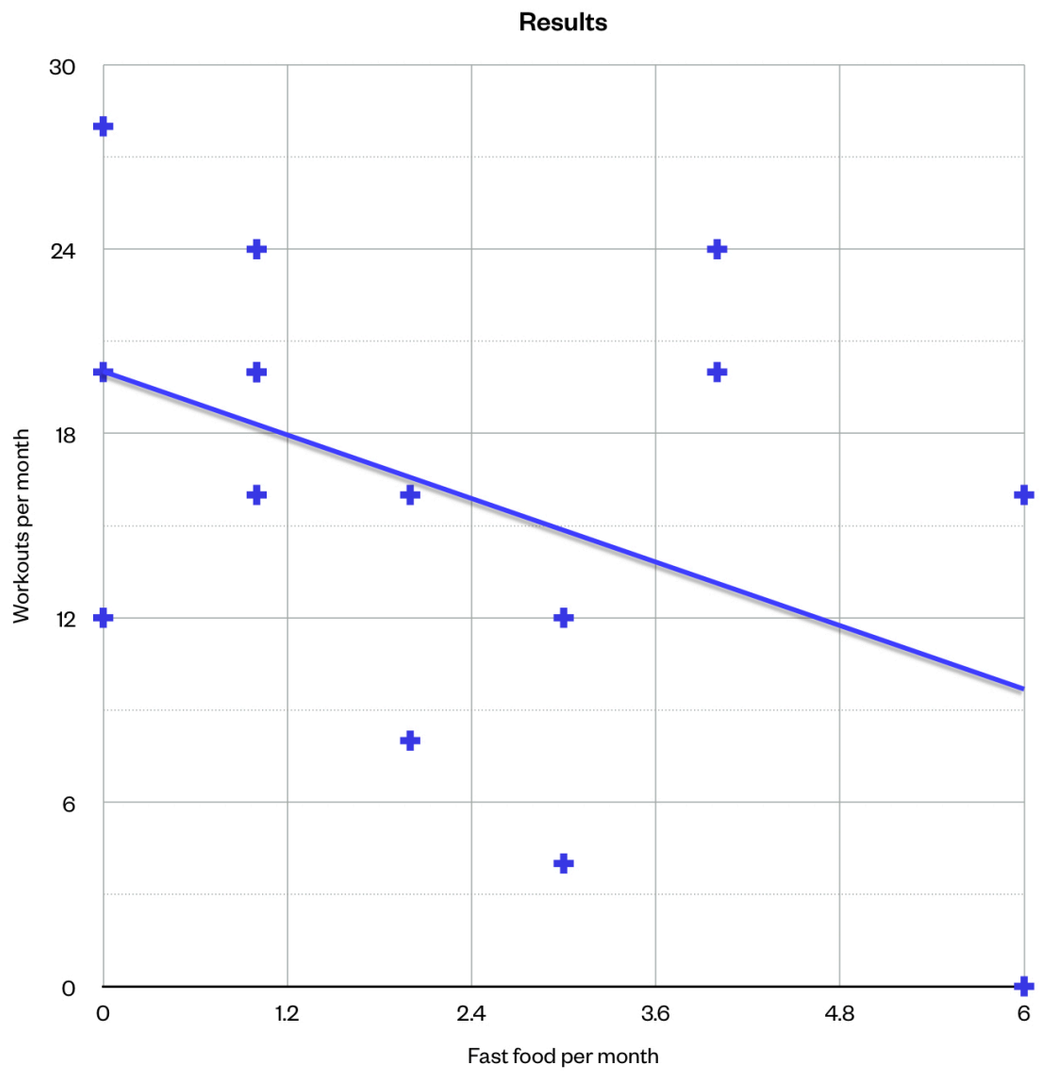


No correlation

Non PLP students

Data

Fast Food	Workout
2.0	8.0
1.0	24.0
1.0	20.0
6.0	16.0
0.0	28.0
6.0	0.0
1.0	16.0
4.0	24.0
0.0	12.0
3.0	12.0
4.0	20.0
3.0	4.0
1.0	20.0
0.0	20.0
1.0	20.0
2.0	16.0



Very weak negative correlation

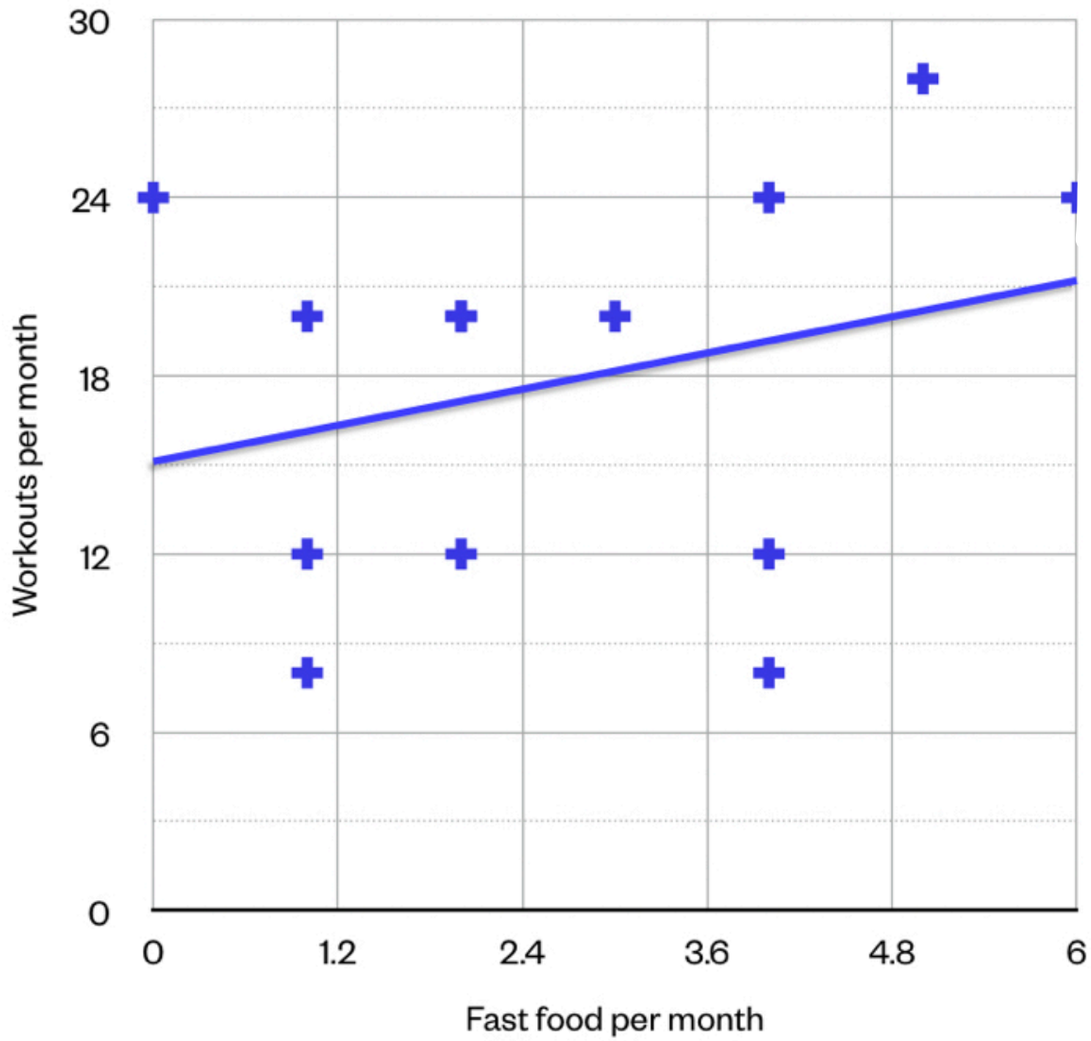
Causation: Motivation

PLP students

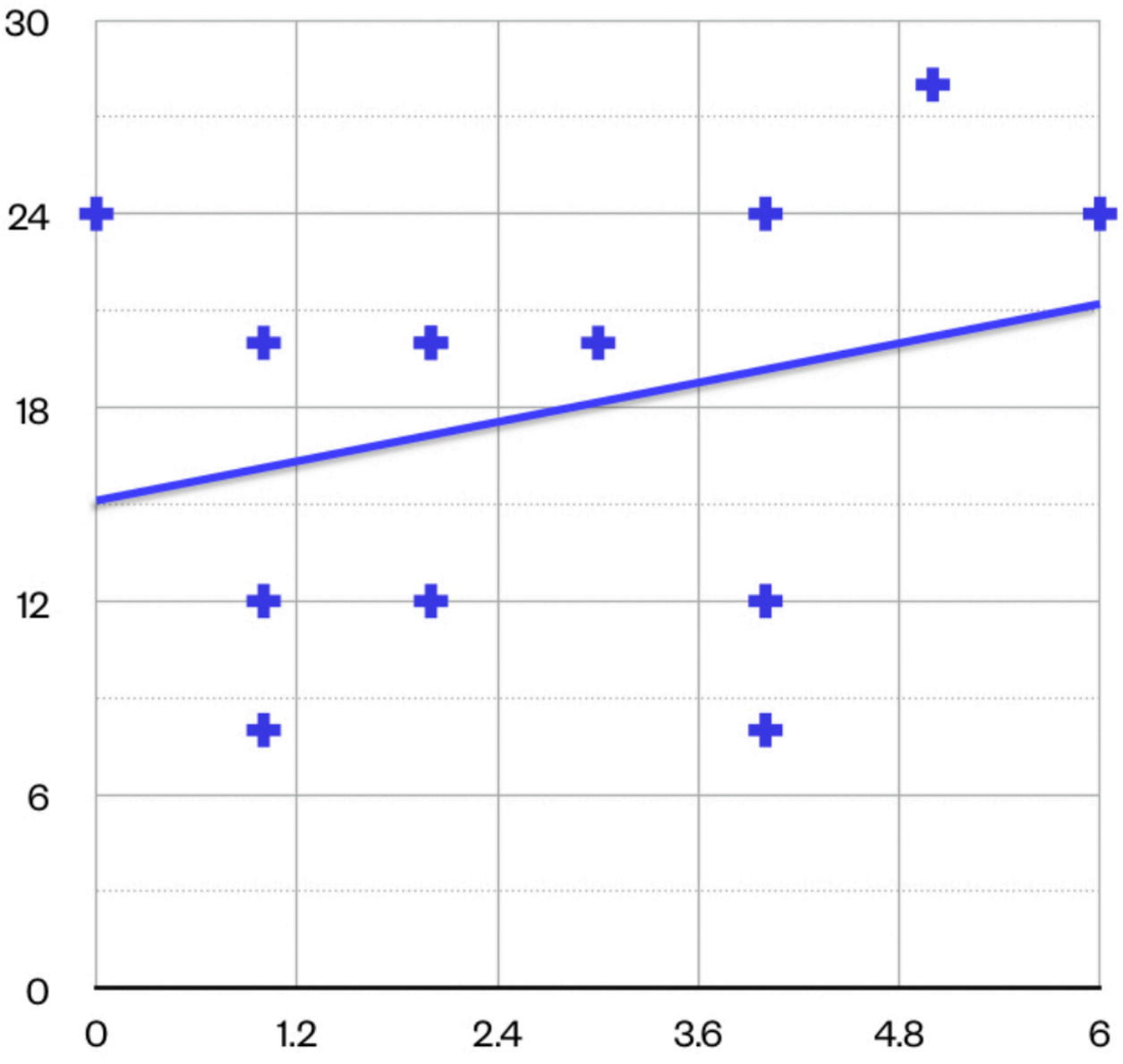
Data

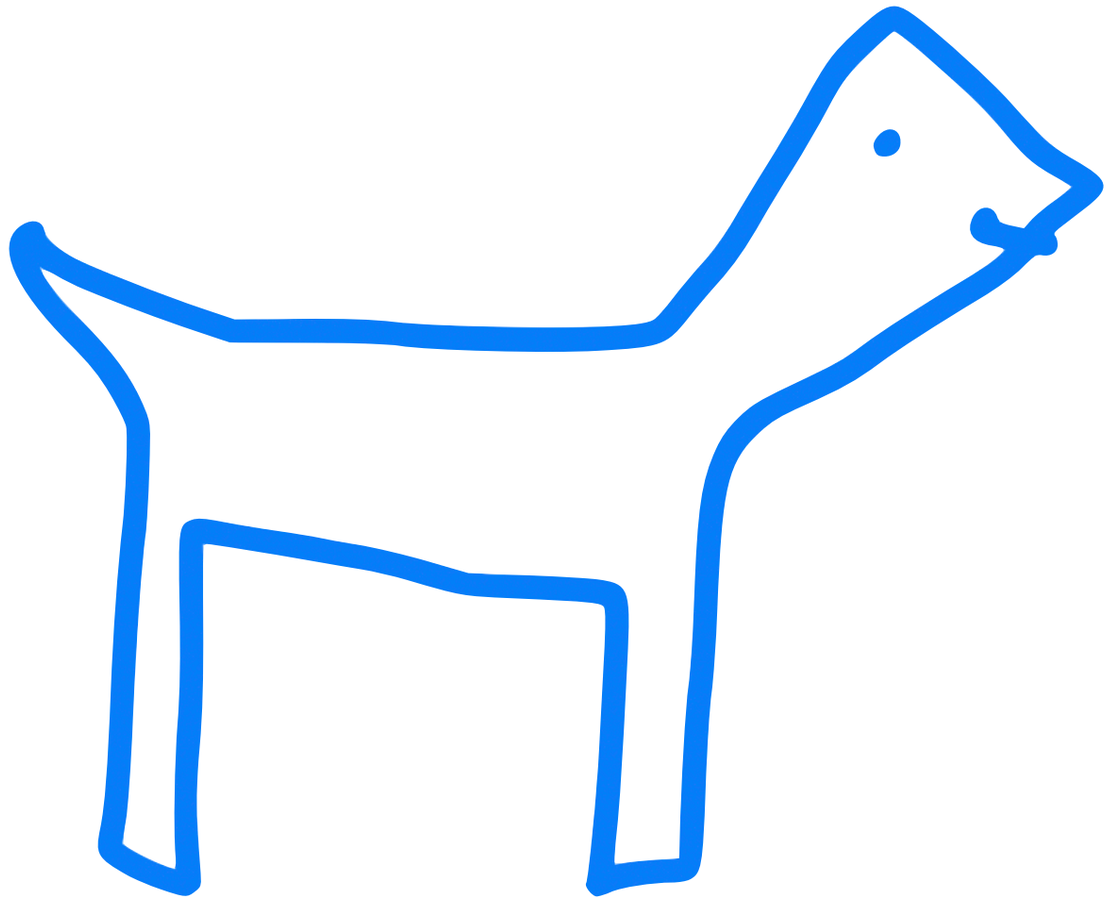
Fast Food	Workout
3.0	20.0
2.0	20.0
5.0	28.0
4.0	24.0
0.0	24.0
2.0	12.0
2.0	20.0
4.0	12.0
1.0	8.0
1.0	12.0
1.0	20.0
4.0	8.0
6.0	24.0

Results



No correlation

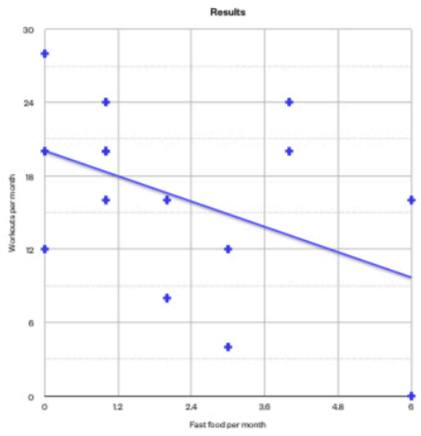

30
24
18
12
6
0
0
1.2
2.4
3.6
4.8
6



Non PLP students

Data

Fast Food	Workout
2.0	8.0
1.0	24.0
1.0	20.0
6.0	16.0
0.0	28.0
6.0	0.0
1.0	16.0
4.0	24.0
0.0	12.0
3.0	12.0
4.0	20.0
3.0	4.0
1.0	20.0
0.0	20.0
1.0	20.0
2.0	16.0

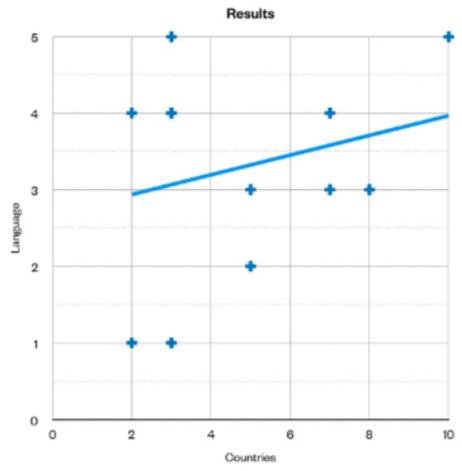


very weak negative

Non-PLP

Data

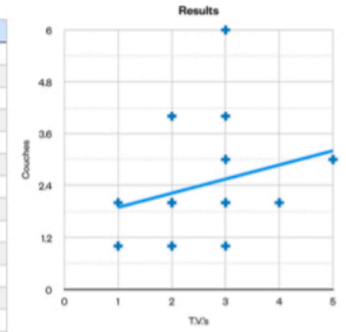
Countries	Languages
10.0	5.0
5.0	3.0
5.0	3.0
8.0	3.0
3.0	5.0
2.0	4.0
7.0	4.0
7.0	3.0
3.0	4.0
2.0	1.0
3.0	1.0
5.0	2.0
3.0	4.0
3.0	4.0



Non-PLP

Data

Couches	T.V.
2.0	2.0
3.0	1.0
3.0	3.0
3.0	2.0
2.0	2.0
2.0	4.0
1.0	2.0
2.0	2.0
1.0	1.0
3.0	4.0
3.0	2.0
5.0	3.0
3.0	2.0
2.0	1.0
4.0	2.0
3.0	6.0
5.0	3.0

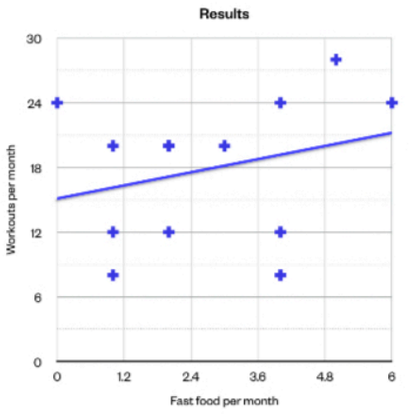


no correlation

PLP students

Data

Fast Food	Workout
3.0	20.0
2.0	20.0
5.0	28.0
4.0	24.0
0.0	24.0
2.0	12.0
2.0	20.0
4.0	12.0
1.0	8.0
1.0	12.0
1.0	20.0
4.0	8.0
6.0	24.0



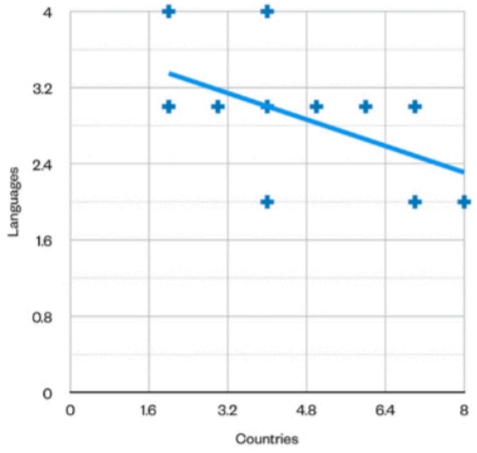
no correlation

harold

PLP

Data-1

Countries	Languages
4.0	2.0
2.0	3.0
8.0	2.0
5.0	3.0
2.0	4.0
7.0	3.0
4.0	3.0
2.0	3.0
4.0	3.0
7.0	2.0
4.0	4.0
3.0	3.0
6.0	3.0

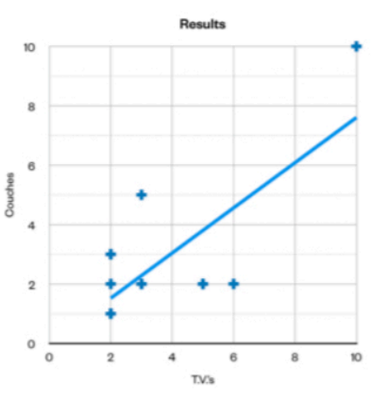


mod negative

PLP questions

Data

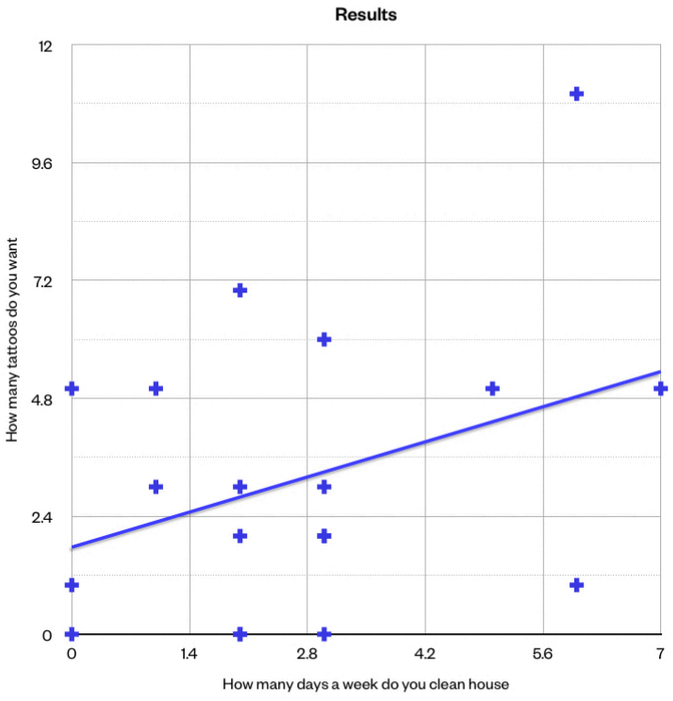
Couches	T.V.
2.0	1.0
3.0	2.0
2.0	3.0
3.0	5.0
2.0	1.0
2.0	3.0
6.0	2.0
2.0	2.0
2.0	1.0
5.0	2.0
3.0	2.0
3.0	2.0
5.0	2.0
10.0	10.0



weak positive

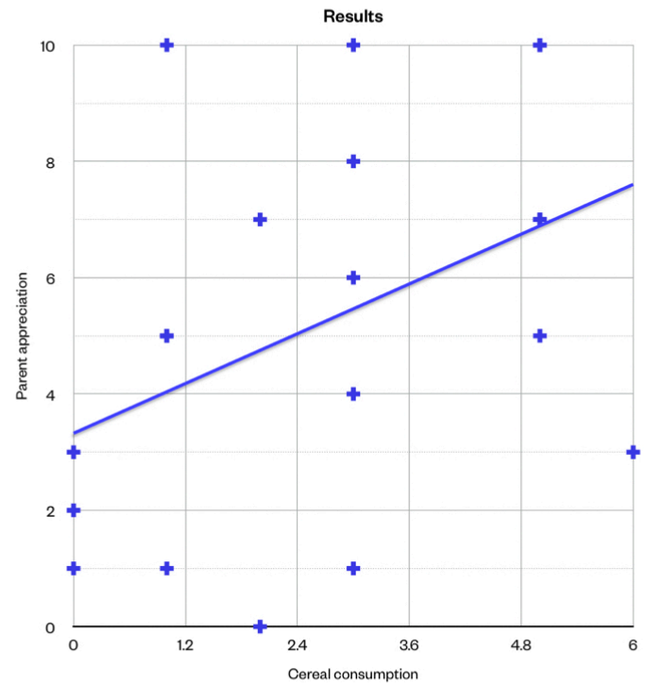
Cleaning house vs tattoos

House	Tattoos
2.0	0.0
3.0	6.0
3.0	0.0
3.0	2.0
5.0	5.0
0.0	5.0
6.0	1.0
2.0	2.0
2.0	0.0
3.0	3.0
7.0	5.0
1.0	5.0
0.0	0.0
0.0	1.0
6.0	11.0
2.0	3.0
1.0	3.0
3.0	2.0
3.0	2.0
2.0	7.0



Cereal consumption vs parent appreciation

Cereal	Love
1.0	1.0
5.0	7.0
1.0	10.0
2.0	0.0
2.0	7.0
3.0	1.0
5.0	5.0
5.0	10.0
3.0	6.0
5.0	10.0
0.0	1.0
5.0	7.0
3.0	4.0
3.0	10.0
1.0	5.0
0.0	3.0
1.0	5.0
0.0	2.0
3.0	8.0
6.0	3.0



Conclusion

So our correlations were not incredibly strong, but we were able to identify correlations and some causations in our graphs. We found this project fun and it taught us a lot about graphs, correlation, and causation. We also enjoyed working with each other. We decided that the difference between correlation and causation is:

Causation is when A causes B or vice versa. It could also be when factor C causes both A and B. Correlation is when there is a relationship between A and B but there doesn't necessarily have to be causation.

Fin