

## Thoughtful Drill: Research Questions

### Arun Nair

Categorize each of the following research questions as "good" or "bad", and provide alternative formulations for the bad ones. Save your responses in a document of some kind, submit a link below, and discuss your reasoning with your mentor.

1. What is the 1994 rate of juvenile delinquency in the U.S.?

This is a good question. It could be further broken down into the reason behind the delinquency, the areas of major delinquency, gender, race, highest delinquency age, which state has the highest delinquency.

2. What can we do to reduce juvenile delinquency in the U.S.?

This needs to be more accurate. The research question does not specify who "we" are. Does the question refer to citizens, officials, parents? What measurement should be taken? Do they mean preventive measures or corrective measures?

3. Does education play a role in reducing juvenile delinquents' return to crime?

This is a debatable topic. The question is trying to insinuate that education has a high correlation with being a good and moral citizen. But it is evident that is not the case, as there are thousands of white collar arrests made every year<sup>1</sup>.

4. How many customers does AT&T currently serve in Washington, DC?

This is a broad question. The customers could include those visiting Washington DC as well. That would mean data that is not accurate. You could ask how many people that live in Washington DC have a subscription with AT&T.

5. What factors lead consumers to choose AT&T over other service providers?

This is a good question. While there are many metrics, it will be comparable by being able to quantify the offers from competitors. A qualitative perspective can also be summarized by viewing the reviews from customers (Quantitative ranking happens here as well).

6. How can AT&T attract more customers?

---

<sup>1</sup> <https://brandongaille.com/34-surprising-white-collar-crimes-statistics/>

This would have to be broken down further. What demographic specifically are they trying to attract? Each demographic may need a specifically tailored ad campaign.

7. Why did the Challenger Shuttle explode?

This is a direct and good question. The reason was due to mechanical failure.

8. Which genes are associated with increased risk of breast cancer?

This is a good question. You can collect the vast range of genes, and see if these people with the particular genes have had a history of breast cancer.

9. Is it better to read to children at night or in the morning?

This is probably not a good research question. Do the children go to school? Who is reading to the children? Children could be exhausted at night.

A good question would be whether the kids pay more attention at night or in the morning when reading to them.

10. How does Google's search algorithm work?

This is a good question, as it is already defined that the PageRank algorithm is how Google's search engine works.