ALWAYS START WITH AN ANALYSIS PLAN!

This is the skeleton of the Structured Pyramid Analysis Plan ("SPAP") we made to guide our Dognition analysis.

Your "SMART" Objective goes at the top of the pyramid

The goal, as it is currently written, is pretty vague. One of the things we go over in "Data Visualization and Communication with Tableau" is how to re-write the goal so that it is specific, measurable, attainable, relevant, and time-bound (abbreviated as "SMART"). Projects with goals that meet these criteria are much more likely to be successful.

Project Objective:
Increase the number of Dognition tests completed

(You would write out all the ways you plan on operationalizing the business metric you are analyzing in your project here. Your description would include the equations you plan to use, and the field and table names of the columns in your database that you need to calculate the metric.)

All the "independent variables", or factors you want to test, are organized below the objective in layers of related concepts

You may come up with these factors by yourself from your own experience, learn about them through talking to your stakeholders, or be assigned them by a team member or manager. The SPAP strategy suggests that you try to organize these factors into categories and subcategories, so that you can assess the factors more efficiently. I've provided for you some examples of categories and subcategories of factors we want to test in our Dognition analysis to determine if they can be useful for increasing Dognition's test completion rate. What other factors should we consider?

- Features of the Dogs
  - Dognition Personality Dimension? IV: ?
  - Speed of game completion? IV: ?
  - Breed
    - Breed group? IV: ?
    - Breed type? IV: ?
      - Purebred vs. others? IV: ?
  - Neutered? IV: ?
  - Previous behavioral training? IV: ?
- Features of the Owners
  - Personality traits?
    - Knowledge-seeking? IV: ?
    - Easily bored? IV: ?
  - Demographics
    - Education IV: ?
    - Socioeconomic status IV: ?
    - Age IV: ?
  - Dog History
    - Dog ownership
      - # dogs owned now IV: ?
      - Dogs owned in lifetime IV: ?
    - Interest in breeding?
      - History buying pure-breeds? IV: ?
      - Ever bred dogs? IV: ?
- Features of Testing Circumstances
  - When?
    - Time of year IV: ?
    - Day of week IV: ?
    - Time of day IV: ?
  - Where?
    - Geographic location
      - Within USA IV: ?
      - Outside USA IV: ?
    - At home or at work? IV: ?
- Interaction with Dognition and Product
  - How did they learn about Dognition?
    - 60 Minutes show? IV: ?
    - Internet searches? IV: ?
    - Recommendations?
      - From who? IV: ?
      - Through what channel? IV: ?
  - Promotions?
    - Free start? IV: ?
- Technology interactions
  - Internet browser?
  - Phone, tablet, or desktop?
    - Operating system? IV: ?

Write the Column and Table names needed to assess each Factor

I recommend writing down exactly what columns in exactly what tables you need to assess each factor, underneath the factor itself. The more complicated the database you are working with is, the more important it is to write down the fields you need in your plan.

Use visualization software that connects to your database to narrow in on the factors that are most likely to influence your metric

The SPAP method offers a strategy for using visualization software like Tableau to quickly assess how important each factor you are testing is likely to be for accomplishing the goals of your project. When visualization software is not available, you may need to do all of your initial analysis using SQL queries. A clear analysis plan will ensure your SQL analysis stays relevant to your project objectives, and is completed as efficiently as possible.

To learn more about how to construct and use SPAPs, please refer to the "Using SPAPs to structure your thinking" videos in "Data Visualization and Communication with Tableau" (https://www.coursera.org/learn/analytics-tableau).