

126.263

Final Project DAT 101

1. People from the neighborhood next to (future) cell tower, and people from the Mohawk plan
2. Question: *'Recent news has been released to the public that there is a 5G cell tower being put in right next to one of three elementary schools in Hampton Township. What are the opinions of the people in that neighborhood compared to the opinions of those in a neighboring plan?'*
 - I chose this question because I was curious on how many people were worried about the tower compared to what others nearby had to think about this problem
3. Sub-Populations in this scenario are going to be N_1 (Neighborhood 1) and N_2 (Neighborhood 2) because in this scenario we need to look at the people's thoughts from the different neighborhoods
4. Var 1: More than 2 hours of smartphone use (Yes/No)
Var 2: Opinion of 5G Cell tower 1-10 (1 = No support, 10 = Full support)

Developing Sampling Procedure

Steps:

1. To gather data from houses, use dice. Roll die and whatever number it lands on will be the selection of the house. For example, if you get a 2, then you would go to every 2 houses.
2. Go to house and try your best to get a response from the residents.
3. Before data collection, ask two questions
 - a. "Do you use your smartphone for at least 2 hours a day?"
 - b. "On a scale of 1-10, how do you feel about the 5G cell tower? 1 being no support and 10 being your full support."
4. Get enough data to use for analysis. (Goal is 30 but 25 is acceptable)
5. If the person is not from around the area or doesn't know of the event is an issue, but the houses are selected previously so you must take down what they say when presented with the questions. Also, try not to tell person about any information that some may use to create a bias. For example, do not try to inform the person that 5G cell towers may cause some cancers.

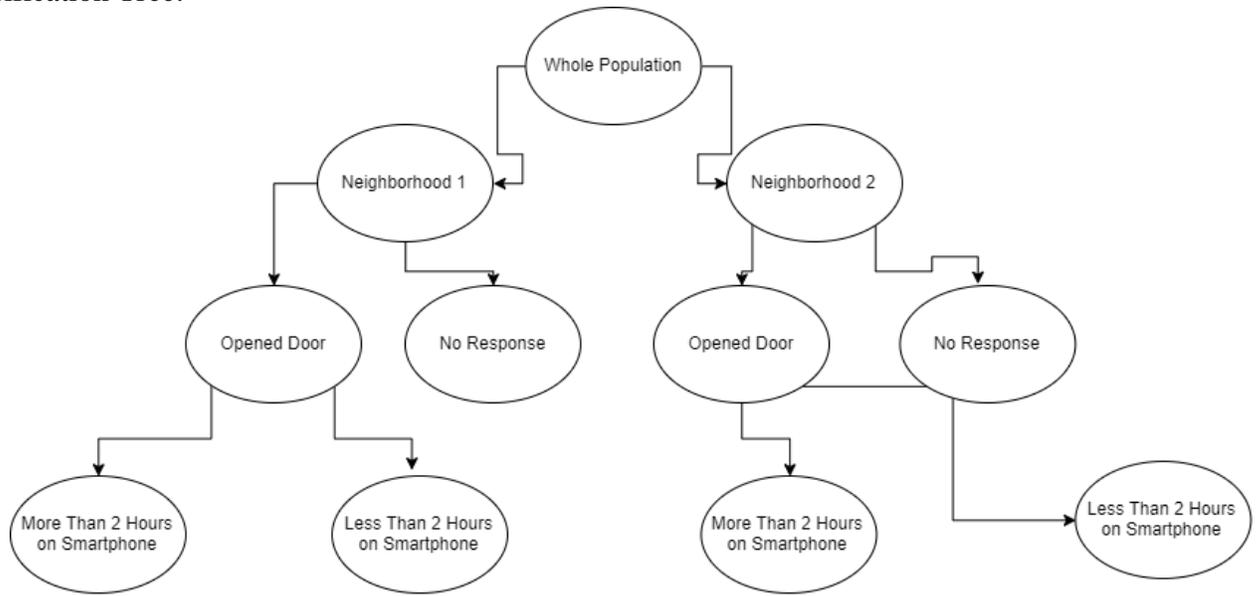
Hypothesis: If we ask those in the neighborhood this tower is being put in, the scores (1-10) will be lower than the scores of those in a surrounding/nearby neighborhood. Also, if someone does not use their phone for more than 2 hours a day, then their score will most likely be 1 or a low score.

Letter to future student: Hello future DAT101 student, I have written this to you for future help if you were to want to redo my project. When getting the data, I recommend that you try your best to get the attention of the resident. I only say this because a house may look empty and elderly folk take a bit longer to get to the door. Other than that the sampling is very simple. A couple issues I have with my own sampling is that the nearby neighborhood had a big section that was not sampled, and sometimes a bias towards the owner of the house may lead you to not go to that house. A revision I would make is the scale, although I feel it is good for the project, it is a bit too small, if it were a larger scale we would be able to see opinions better.

Peer Reviewed Article:

Quinn, Samm. "Aesthetics of 5G Wireless Small Cell Towers Spark Concern in Suburbs." *Indianapolis Business Journal*, Indianapolis Business Journal, 2 Aug. 2019, www.ibj.com/articles/aesthetics-of-5g-towers-spark-concern-in-suburbs.

Classification Tree:



Neighborhood 1				Neighborhood 2			
House ID	Q1	Q2		House ID	Q1	Q2	
1	No	1	Median	1	16	Yes	5 Median
2	Yes	1	Mean	0.8667	17	Yes	4 Mean
3	0	0	Mode	1	18	0	0 Mode
4	Yes	1	25%	0	19	No	1 25%
5	Yes	1	50%	1	20	0	0 50%
6	No	1	75%	1	21	No	1 75%
7	No	3	Std. Dev.	0.718	22	Yes	2 Std. Dev.
8	0	0			23	0	0
9	No	1			24	No	1
10	0	0			25	Yes	4
11	No	1			26	0	0
12	0	0			27	No	1
13	No	1			28	Yes	4
14	Yes	1			29	No	1
15	No	1			30	Yes	6

