Look back to the potential experiments in the previous assignment. For one of those experiments, write up the essential points of a research proposal for an improved version of that experiment.

The Sith Lords are concerned that their recruiting slogan, "Give In to Your Anger," isn't very effective. Darth Vader develops an alternative slogan, "Together We Can Rule the Galaxy." They compare the slogans on two groups of 50 captured droids each. In one group, Emperor Palpatine delivers the "Anger" slogan. In the other, Darth Vader presents the "Together" slogan. 20 droids convert to the Dark Side after hearing Palpatine's slogan, while only 5 droids convert after hearing Vader's. The Sith's data scientist concludes that "Anger" is a more effective slogan and should continue to be used.

**The problem**

Our slogan for recruiting new Sith lords is not very effective. Given that we are a galactic empire responsible for keeping order in the universe it is very important that we employ highly capable people to maintain order. Recruiting the right people and retaining them is important and we know that the best way to keep people is to have aligned motivations and the proper incentives.

**The potential solution**

In order to recruit better people for maintaining order in our empire we need to better communicate the goals of the role and the incentives that are available to highly qualified candidates. The goal is to test the effectiveness of a new slogan so that we can identify whether it is more effective at recruiting highly qualified candidates. We will be testing a new slogan; “Together we can rule the Galaxy.”

**The method of testing the solution**

We will test this new solution by first assembling a large and diverse sample that is representative of our population. We will be sure to include various species from across the galactic empire to represent the population on which this slogan will be used if it is deployed. We will start with a sample size of 1000 as we are a galactic empire and it should be cake to acquire this many subjects.

We will run the test during a *quiet* period (not after any recent rebellions, uprisings or pod-races that might influence our subject’s reactions towards the empire.) Additionally, we will have a storm trooper deliver the messages to each of our subjects as previous tests on droids have shown that the awesome power of Darth Vader and the Emperor tend the skew the results of our testing. A storm trooper is chosen because they are less intimidating than a Sith lord, but still are an authoritative representative.

Our subjects will be randomly split between three groups. This will be to run parallel A/A and A/B tests or an A/A/B test. Comparing the results of the initial A/A tests will allow us to get an idea of the expected variation (or error) between identical groups. This will give us a threshold for which our A/B test should be compared against. If our new slogan is not more effective than the difference between the A/A test then we will know that random error might have influenced our tests.