**Does a new supplement help people sleep better?**

**Two versions of the supplement**: let’s call the original supplement A, and the new supplement B.

**A sample, divided into two groups**: Randomly invite people to take this new supplement. We can send them email or in mail letter or randomly phone call. Let them take the supplement A for half month and take supplement B for the next half month. Upon agree to participate in this experiment, they will receive a form to record some variables during experiment period.

**Hypothesis**: The new supplement will help people sleep better.

**Outcome(s) of interest**: After the experiment, if after taking supplement B, people dream less, rarely waking up, go to sleep easily, then we can conclude that our supplement B works better than A.

**Other variables**: On the form, we need people to record the time they go to bed, and time they wake up, whether they wake up during the night or not, external or internal source to wake them up during nights if exist, fall in sleep easily or takes a while, have dream or not.

**Will new uniforms help a gym's business?**

**Two versions of the supplement**: Prepare two version of gym uniforms.

**A sample, divided into two groups**: Recording the new number of incoming members for 3 months or even longer. And record the new number of incoming members for the same length of time for the same season next year. (eg: The recording period is between March to August, then repeat this experiment with the new uniform during the March and August for the next year.)

**Hypothesis**: New uniform helps gym’s business.

**Outcome(s) of interest**: If there is an increase on membership or high proportion people convert from guest pass to official membership, then the new uniform indeed improves the business. If there is no significant changes or hard to find and correlations, then new uniform does not work as expected.

**Other variables**: Number of Guest pass given out for both phase of the experiment, and number of time people asked about the new uniform, the ratio guest pass convert to official membership.

**Will a new homepage improve my online exotic pet rental business?**

**Two versions of the supplement:** Old homepage and new homepage

**A sample, divided into two groups**: Recording the homepage activities for 3 months or longer, then change to the new homepage and record the activities for the same length of time.

**Hypothesis**: New homepage will improve business.

**Outcome(s) of interest**: If rent/enter ratio got higher and more people enter this website. Then the new website indeed helps the business.

**Other variables**: Number of people who enter the website, whether they rent a pet or not, the rent/enter ratio.

**If I put 'please read' in the email subject will more people read my emails?**

**Two versions of the supplement**: Emails with ‘Please read’, and emails without ‘Please read’

**A sample, divided into two groups**: Record the number of people who received my email, and the number of people who read my email, and get the open/received ratio. Do this for a month or more. And add ‘Please read’ to the title of each email, then record the open/received ratio.

**Hypothesis**: This will lead more people to read my email.

**Outcome(s) of interest**: if open/receive ratio got higher, then this method works well, otherwise not.

**Other variables**: Whether my email got deleted or not without reading,