Two versions, hypothesis, outcomes of interest, sample, other measured variables

Does a new supplement help people sleep better?

Versions - Control version is the no supplement group. Test version is the supplement group

Sample - 1 group who receives sleep supplement & 1 who receives none

Outcome of interest(s) - How many hours of sleep each group gets.

Hypothesis - The group that receives the supplements will have more hours of sleep a night leading to better sleep

Other measured variables - Quality of sleep, ease of falling asleep

Will new uniforms help a gym's business?

Versions - Control version: Old uniforms. Test group: New uniforms.

Samples - It's all on or off. So to create randomness could do a week to week study. Where first week sample group see's old uniform followed by the next week sample group seeing new uniforms.

Outcome of interest(s) - Track the profit generated with each group

Hypothesis - New uniforms will generate more business bringing more profit

Other measured variables - Churn rate(Don't want to the new uniforms to lose business)

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

Versions- Control: Old homepage, Test: New homepage

Sample - All on or off. Could do week to week like example above or month to month depending on website traffic.

Outcome of interest - Online rental sales

Hypothesis - A new homepage will lead to increased profit for pet renting business.

Other measured variables - Clicks and signups

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

Versions - Control: regular emails, Test: Emails with 'please read'

Sample - 1 group receives emails without the new subject the other group receives emails with the subject 'please read'

Outcome of interest - higher rate of read emails

Hypothesis - By adding 'please read' in the subject line people will open more of my emails Other measured variables - Response rate