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

Two versions: Test the old supplement vs the new supplement.

Sample: Test the old supplement with a randomized sample of people vs the new supplement with a randomized sample of people from the same population testing the old supplement

Hypothesis: The new supplement works better than the old supplement. Attempt to reject the null hypothesis that there is no difference in sleep between the people taking the new vs the old supplements

Outcome: Hours of sleep through the night

Other measured variables: Ensure demographics such as gender and age in the both control and treatment samples are equally represented. Also can test secondary outcomes such as less likelihood of taking a nap in a day with new supplements or feeling more awake during the day. Or even waking up less at night.

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

Two versions: Control = old uniforms; Treatment= new uniforms

Sample: Test one customer sample population using old uniforms by employees for period of time (weeks) against another sample population using the new uniforms. Assumes sample customers are different between old and new uniform test periods.

Hypothesis: Business profits will be better during the week when employees use new uniforms compared to old uniforms

Outcome: business profits

Other measured variables: More customers per day vs more purchases per customers with different uniforms. Employee job satisfaction with old uniforms vs new uniforms.

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

Two versions: Website that opens with old homepage (control) for a set period of time and a website that will open with new homepage after some time

Sample: Random sample of viewers that will open website and experience the old website vs new website.

Hypothesis: New website will bring in more customers to the store during the time it is running than when the old website is running

Outcome: Customers sales and number of people coming to store

Other measured variables: Analytics that test time website visitors spend on pages

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

Two versions: Emails sent with no prompt (control) vs emails sent with ‘please read me’ prompt (treatment)

Sample: random sample of recipients with equal representation of demographics

Hypothesis: Email with ‘please read me’ prompt will result is more people reading emails

Outcome: Measure responses to emails with and without ‘please read me’ prompt

Other measured variables: d