MUSCLEHUB FITNESS TEST. SHOULD IT BE KEPT?

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WHY THE A/B TEST?

- In the A/B Test, the MuscleHub Gym created two Groups.

  Group A – Those who received a fitness test

  Group B – Those who did not receive a fitness test

- The main reason that MuscleHub created the A/B Test and hired myself to analyze the data, is to see whether or not the Fitness Test is beneficial in attracting new members to the gym.

THE DATA.

- The data recorded by MuscleHub was stored in 4 main tables
    - Visits – Records the dates that people visited the gym
    - Fitness_Test – Records those individuals who received a fitness test
    - Applications – Records those individuals who filled out an application
    - Purchases – Records those who purchased a membership.

- Interviews were conducted and the transcripts had been compiled.

THE TESTS.

- Test 1 (Chi Square) – Categorical Data
  - This test was conducted to see whether or not Group A vs. Group B application submission was statistically significant.
  - The test determined that application submission was statistically significant with Group A turning in applications at a lower rate (9.98%) compared to Group B (13.0%). The p-value was .000965.
- Test 2 (Chi Square) – Categorical Data
  - This test was conducted to see whether or not Group A vs. Group B membership purchases were statistically significant if an application was submitted.
  - The test determined that membership purchases were not statistically significant, though Group A purchasing memberships at a higher rate (80.0%) compared to Group B (76.9%). The p-value was .433.
- Test 3 (Chi Square) – Categorical Data
  - This test was conducted to see whether or not Group A vs. Group B membership purchases were statistically significant (barring application submission).
  - The test determined that membership purchases were statistically significant with Group A purchasing memberships at a lower rate (7.99%) compared to Group B (10.0%). The p-value was .0147 .
- P-Values .05 and below are statistically significant.

WHY THE CHI SQUARE?

- The three tests called for the Chi Square test.

- The data in question was categorical in that I was always testing two categories e.g. those who purchased a membership or did not purchase a membership. I did not compare means so a t-test would have been inappropriate.

THE INTERVIEWS.

- I was supplied with 4 interview transcripts.
- Reading through four interview transcriptions out of thousands of people makes the qualitative reasoning hard.

- Over all the interviews were mixed with some enjoying the fitness test and others who did not care for the fitness test.
- This outlook is in line with the data, as there was not an overwhelming majority of people supporting the fitness test or decrying it. As seen in the graph.

RECOMMENDATION

- After conduction the statistical tests and reviewing some of the text messages.

MuscleHub should abandon the fitness test

As a way to attract new members.

- MuscleHub could research other methods to attract new business and create new tests in order to find the optimal marketing strategy.