MuscleHub:
A/B Testing the Recruitment Effectiveness of Fitness Tests

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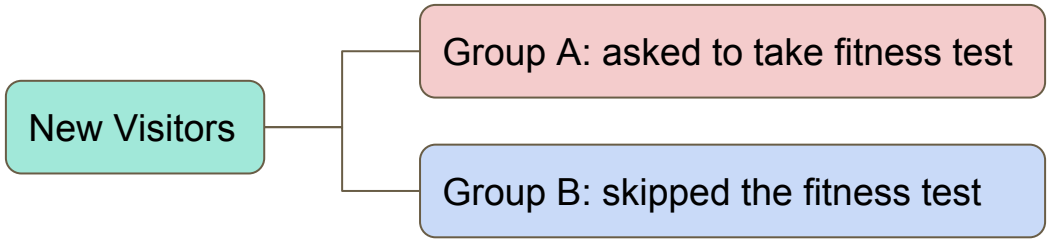
Overview

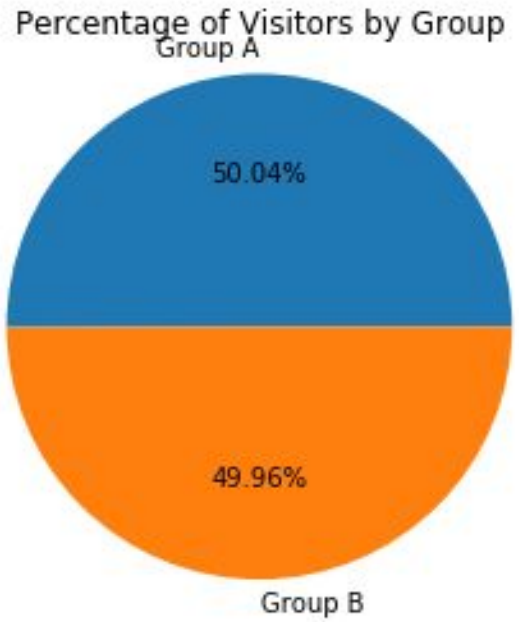
- Manager Janet suspects that the introductory fitness test intimidates some prospective members.
- An A/B test was performed to determine the effectiveness of fitness testing as a new member recruitment tool.



- Which approach generated more memberships for MuscleHub?

The Dataset

- Test start date: 7-1-17
- Test end date: 9-9-17
- Sample Size: 5,004 visitors
- Janet properly created two equal test groups.
- The necessary sample size could not be calculated. Janet's database lacked membership data prior to the A/B test period.



Three Hypothesis Tests

The Sign-up Process:

1. Take a fitness test with a personal trainer (only Group A)
2. Fill out an application for the gym
3. Send in their payment for their first month's membership

Hypothesis 1

The fitness test deters visitors from submitting an application.

(i.e. step 1 to step 2 attrition)

Hypothesis 2

The fitness test deters applicants from purchasing a membership.

(i.e. step 2 to step 3 attrition)

Hypothesis 3

The fitness test deters visitors from applying and purchasing a membership.

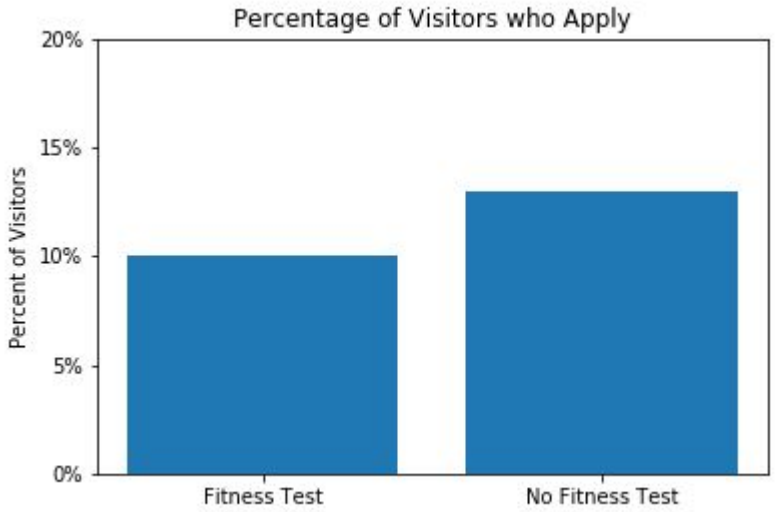
(i.e. step 1 through step 3 attrition)

Test 1 Results

Group A applicants: 10%
Group B applicants: 13%

Result: 3% more visitors submitted an application when they skipped testing.

- Chi Square test was applied to compare the two categorical datasets.
- P-value of 0.00096: the result is significant

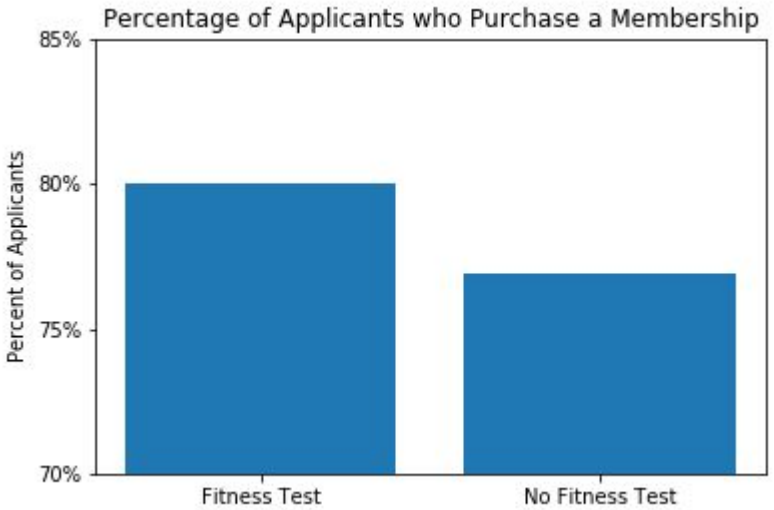


Test 2 Results

Group A memberships: 80%
Group B memberships: 77%

Result: 3% fewer applicants purchased a membership when they skipped testing.

- Chi Square test was applied to compare the two categorical datasets.
- P-value of 0.43: the result is not significant

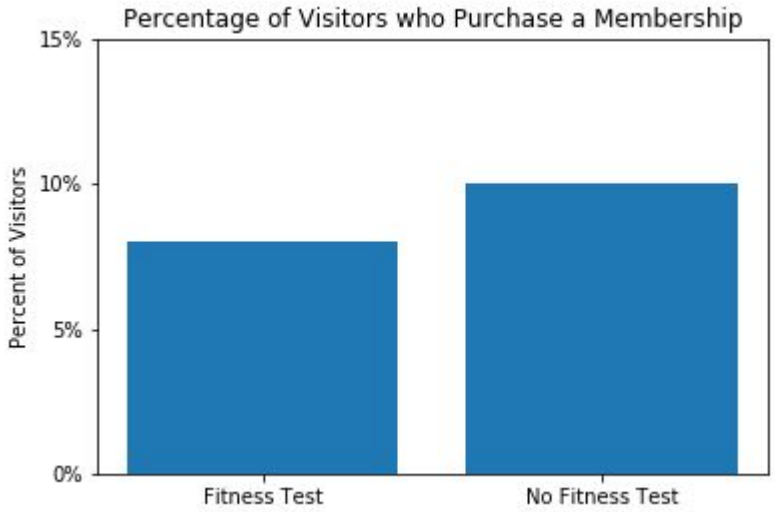


Test 3 Results

Group A memberships: 8%
Group B memberships: 10%

Result: 2% more visitors purchased a membership when they skipped testing.

- Chi Square test was applied to compare the two categorical datasets.
- P-value of 0.015: the result is significant



Qualitative Data

- Janet conducted four customer interviews.
  - One person appreciated fitness testing.
  - Three people did not appreciate fitness testing.
- A sample size of four interviews is not representative of all customers.
- Some customers think fitness testing is an aggressive sales tactic.

Recommendations for MuscleHub

1. Tests 1 and 3 support Janet's hypothesis that fitness testing deters some prospective members.
2. To maximize the number of new memberships, I suggest that fitness testing should not be instated.
3. Further testing could reveal if fitness testing as an optional service outperforms the results of this A/B test.