Do fitness tests affect purchases?

Data Analysis Results

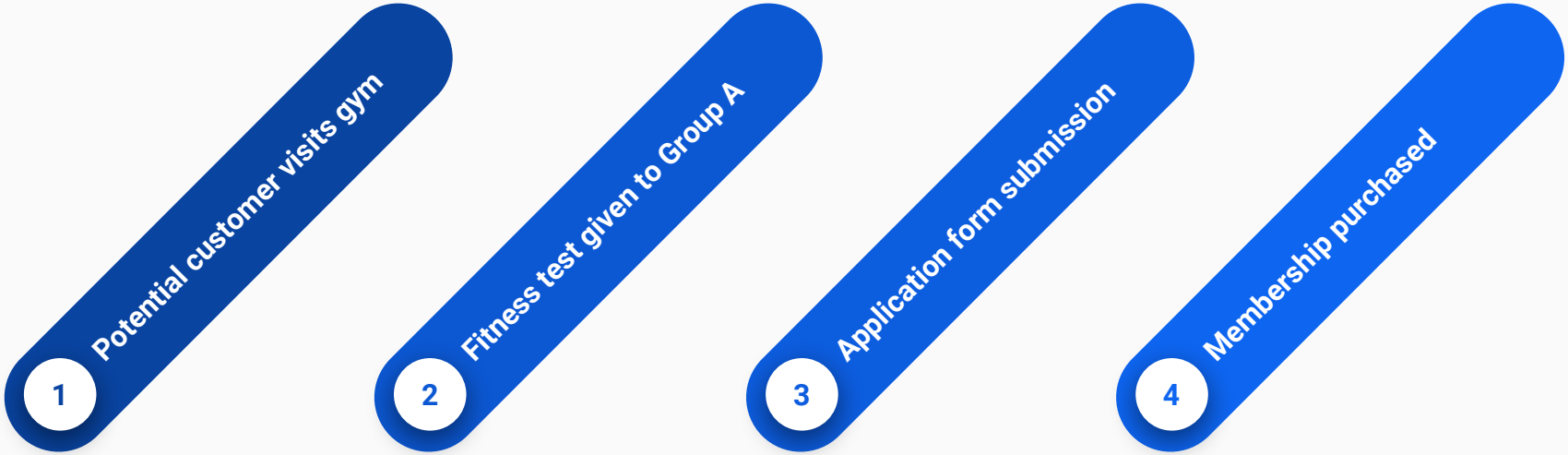
The A/B Test

Current State

Currently, prospective MuscleHub members follow the following steps:

1. Take a fitness test with personal trainer
2. Fill out an application for the gym
3. Send in their payment for their first month’s membership

The Customer Journey



The Unknown

Does the first step - the fitness test - intimidate some prospective members away from completing an application form and, ultimately, purchasing a membership?

The A/B Test

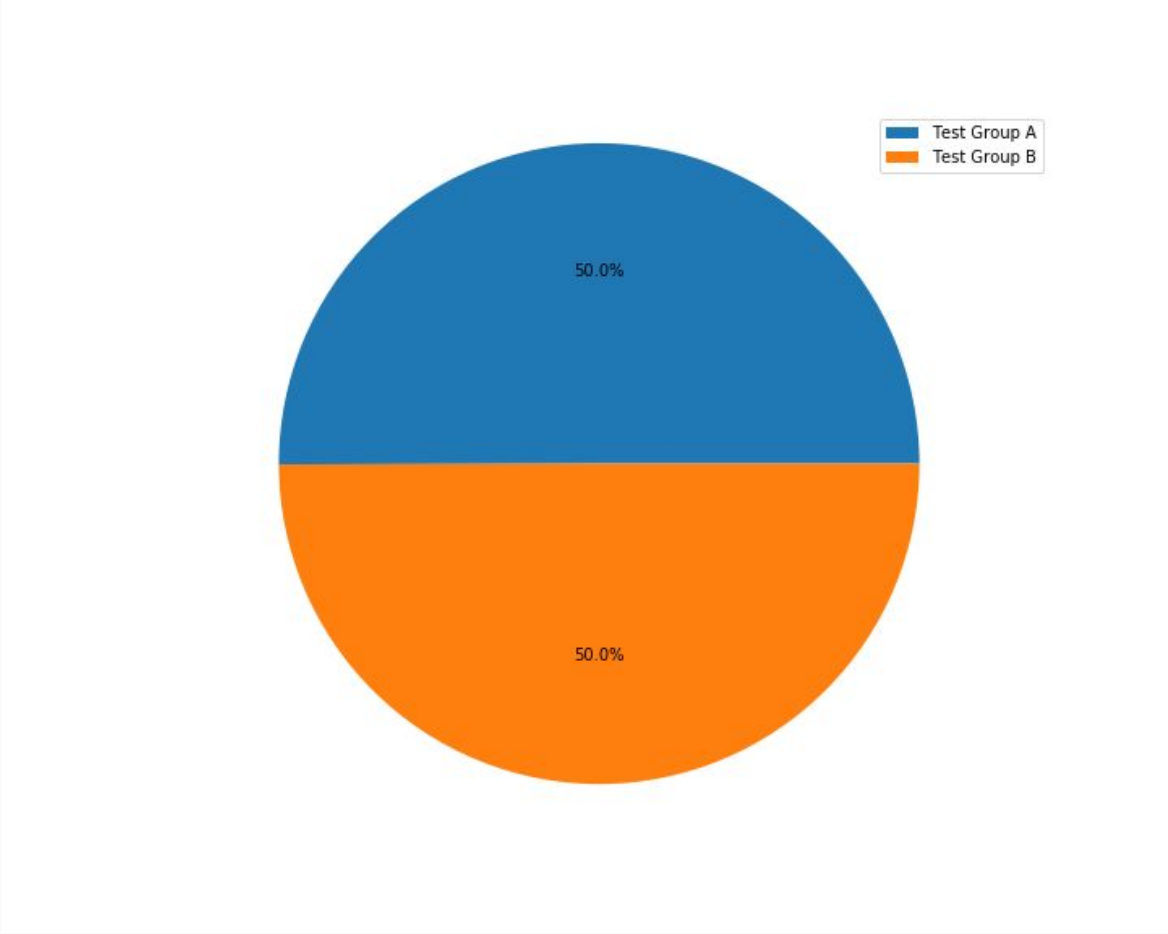
An A/B test was set up.

Visitors have been randomly assigned to one of two groups:

- Group A was still asked to complete a fitness test
- Group B skipped the fitness test and proceeded directly to application

The distribution of the groups was 50:50.

The hypothesis was that visitors assigned to Group B will be more likely to eventually purchase a membership.



The datasets

- Data on potential gym customers who visited MuscleHub
- Data on potential customers from both groups who filled out an application
- Data on potential customers in Group A who were given a fitness test
- Data on customers who purchased a membership

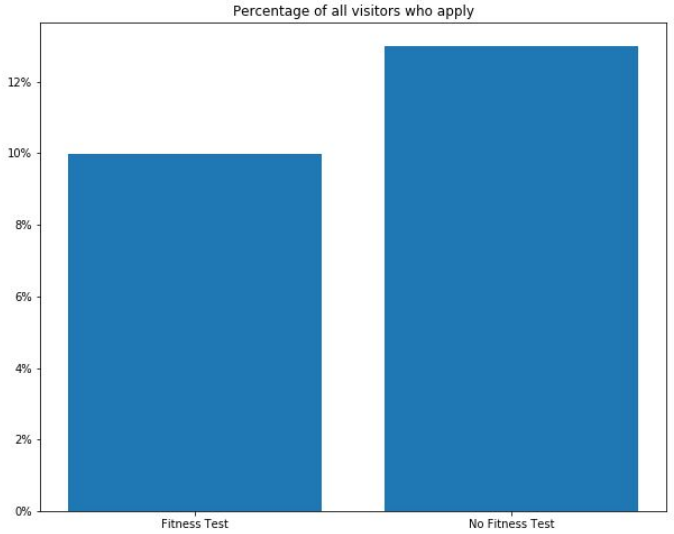
The Results

Chi-Squared Tests

- The following analysis uses Chi-Squared test to evaluate statistical significance.
- Chi-Squared tests were chosen as these are categorical datasets, and a numerical test would not have been appropriate.
- Chi-Squared tests were also chosen there is more than two categorical datasets, and so a Binomial test would not have been appropriate.

Finding #1

- 3% more people who did NOT do a fitness test picked up application forms.
- This may suggest that not doing a fitness test incentivises application.
- We tested this finding for statistical significance.



Finding #1

Does not doing the fitness test incentivise applications?

We performed a Chi-Squared test to determine statistical significance.

If the p-value returned by a Chi-Squared test is less than 0.05, then we confidently reject the hypothesis that the 3% difference was the product of mere chance.

	Application	No Application
Group A	250	2245
Group B	325	2175

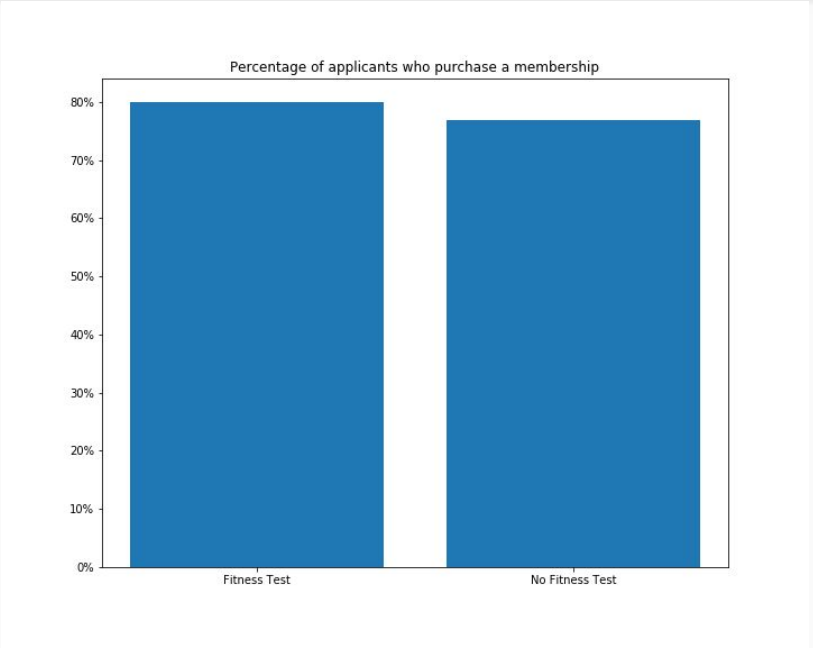
Chi-Squared Test
P-value = 0.0010 < 0.05

The p-value is less than 0.05, therefore the 3% difference is statistically significant.

There is evidence to suggest that people who do <u>not</u> do the fitness test will pick up more applications than people who do.

Finding #2

- Out of the people who picked up an application form, 3% more people who did NOT do the fitness test purchased a membership.
- This may suggest that not doing a fitness test incentivises purchases for those who already picked up an application form.
- We tested this finding for statistical significance.



Finding #2

Does not doing the fitness test incentivise purchases for those who picked up an application form?

We performed a Chi-Squared test to determine statistical significance.

If the p-value returned by a Chi-Squared test is less than 0.05, then we confidently reject the hypothesis that the 3% difference was the product of mere chance.

	Member	Not Member
Group A	200	50
Group B	250	75

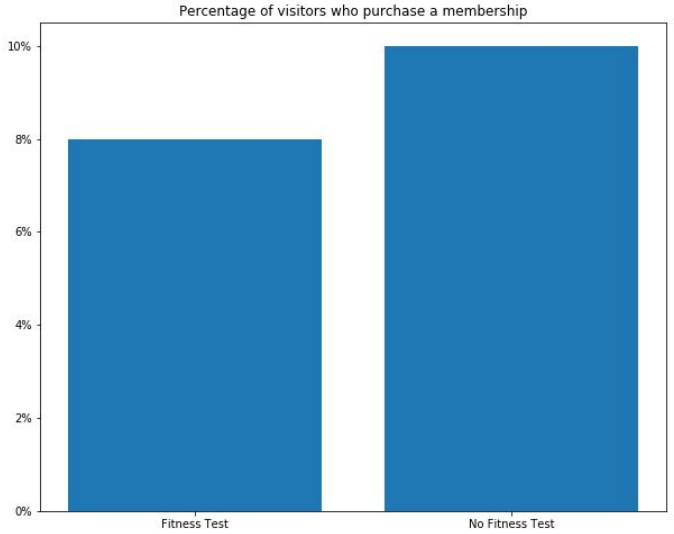
Chi-Squared Test
P-value = 0.4326 > 0.05

The p-value is greater than 0.05, therefore the 3% difference is **not** statistically significant.

There is no evidence to suggest that, from people who already picked up an application form, not doing the fitness test will lead them to purchase a membership.

Finding #3

- 2% more people who did NOT do a fitness test purchased a membership.
- This may suggest that not doing a fitness test incentivises purchases.
- We tested this finding for statistical significance.



Finding #3

Does not doing the fitness test incentivise purchases?

We performed a Chi-Squared test to determine statistical significance.

If the p-value returned by a Chi-Squared test is less than 0.05, then we confidently reject the hypothesis that the 2% difference was the product of mere chance.

NOTE: this test is testing for all visitors, as opposed to the previous test which only tested for those who picked up an application form.

	Member	Not Member
Group A	200	2304
Group B	250	2250

Chi-Squared Test
P-value = 0.0147 > 0.05

The p-value is less than 0.05, therefore the 2% difference is statistically significant.

There is evidence to suggest that, for all visitors overall, not doing the fitness test will create more purchases.

Qualitative data support

- The qualitative data was split. There wasn’t a clear view provided by participants on the effect of fitness tests.
- One of the participants reflected negatively about the fitness test.
- One participants reflected positively about the fitness test, and another also reflected positively about the application process.

“I took the MuscleHub fitness test because my coworker Laura recommended it. Regretted it.”

- Sonny "Dad Bod", 26, Brooklyn

“This is my first gym membership EVER, and MuscleHub made me feel welcome.”

- Shirley, 22, Williamsburg

Conclusion & Recommendation

The fitness test impacts negatively on applications and purchases.

Simply boosting applications will not mean that potential customers will become members.

The barrier is the fitness test.

The fitness test should be optional. Customers should not be forced to do the fitness test.

Thank you