

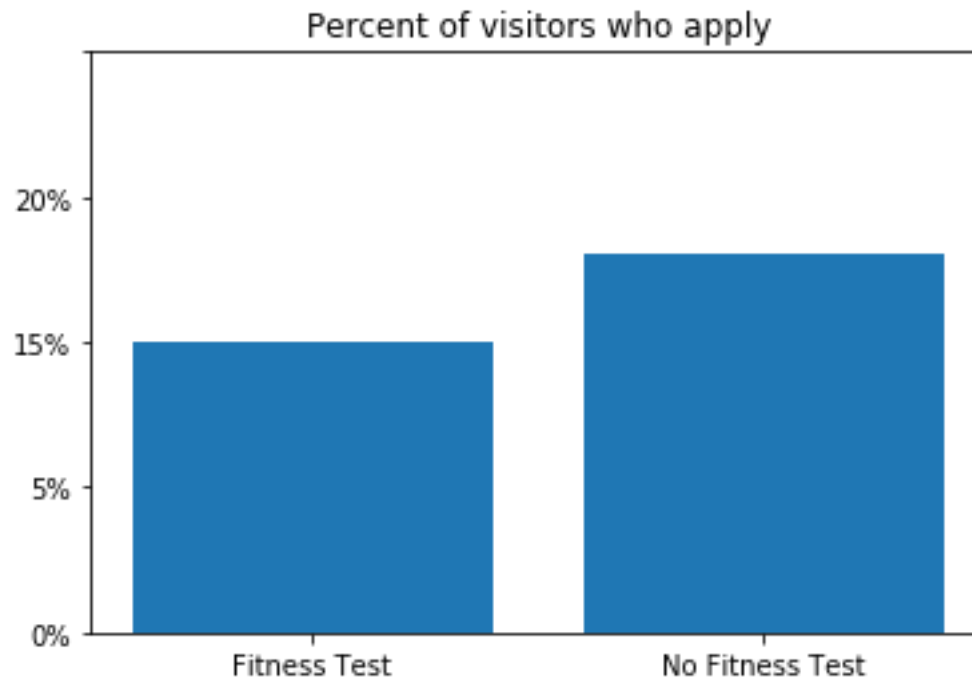
MuscleHub

A/B Test

Summary

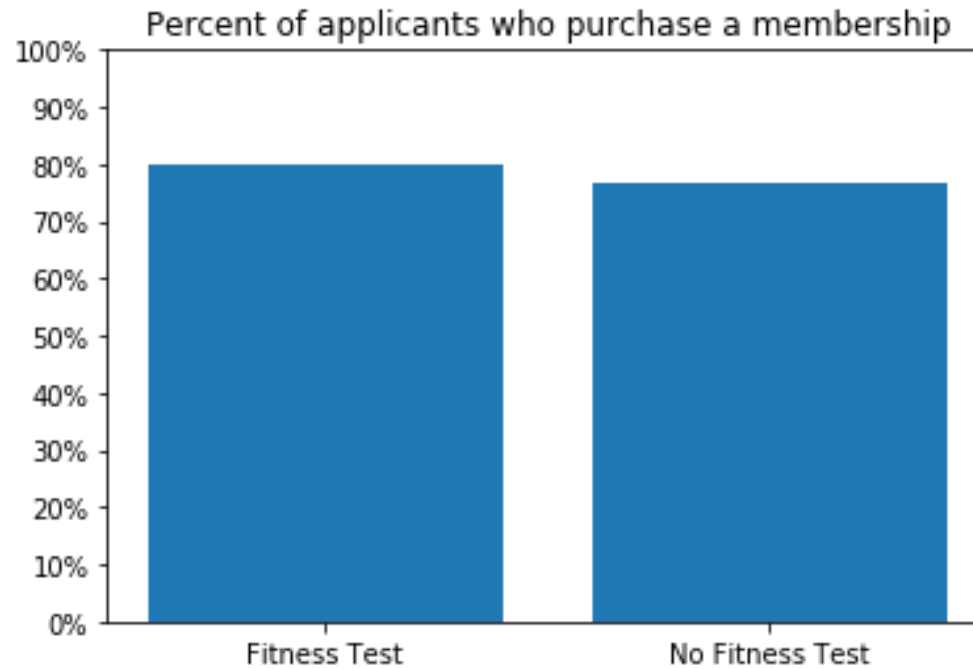
- A/B test was performed on three different groupings:
 1. Percent of visitors who apply
 2. Percent of applicants who purchase a membership
 3. Percent of visitors who purchase a membership
- The analysis indicate that more people apply for membership and become paying clients when they are not required to take a fitness test

Test 1



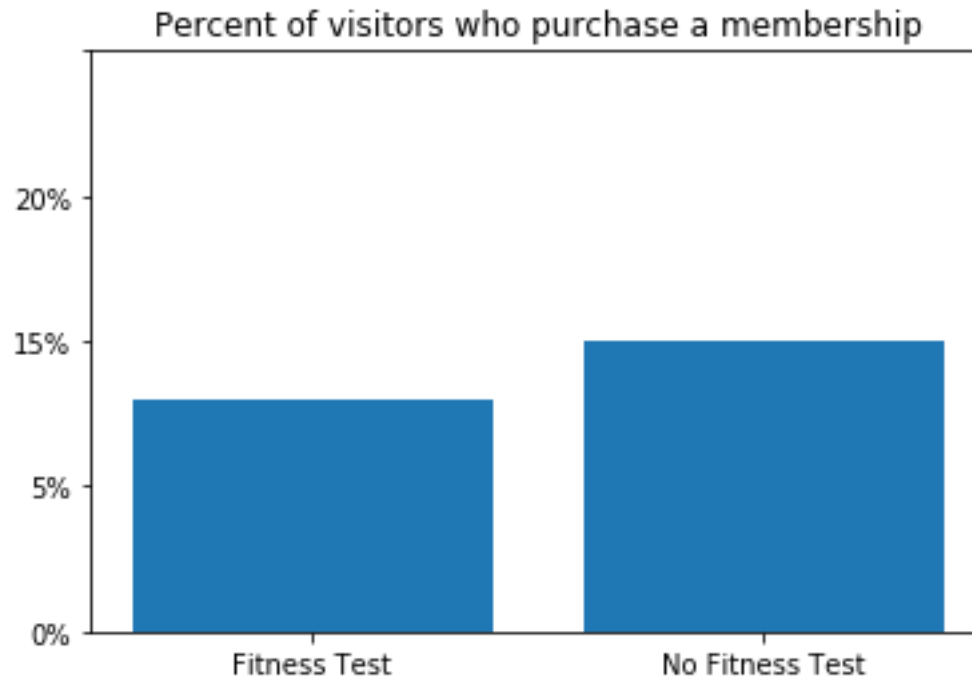
Percent of visitors who apply					
is_application	ab_test_group	Application	No Application	Total	Percent with Application
0	A	250	2254	2504	0.09984
1	B	325	2175	2500	0.13000

Test 2



Percent of applicants who purchase a membership					
is_member	ab_test_group	Member	Not Member	Total	Percent Purchase
0	A	200	50	250	0.800000
1	B	250	75	325	0.769231

Test 3



Percent of visitors who purchase a membership					
is_member	ab_test_group	Member	Not Member	Total	Percent Purchase
0	A	200	2304	2504	0.079872
1	B	250	2250	2500	0.100000

Hypothesis Tests

- We are analyzing (non numerical) discrete categories of data.
- There are more than two categories which disqualifies binomial tests and suggests the Chi Square test.
- Null hypothesis = There is no significant difference between the datasets
- Test results:

	Pval
Test1	0.0009647827600722304,
Test2	0.43258646051083327,
Test3	0.014724114645783203,

- Test 1 and Test 3 is significant and rejects the null hypothesis
- Test 2 confirms the null hypothesis

Quality Data

The interviews are in line with the indication from the A/B Test. Most visitors seem to not appreciate the fitness test and in worst case it will make them reconsider joining the gym.

Recommendation

Musclehub should quit its current required fitness test for potential new members. Even though some visitors appreciate it, A/B tests and interviews suggests that it is hurting the business.