

MuscleHub A/B Test

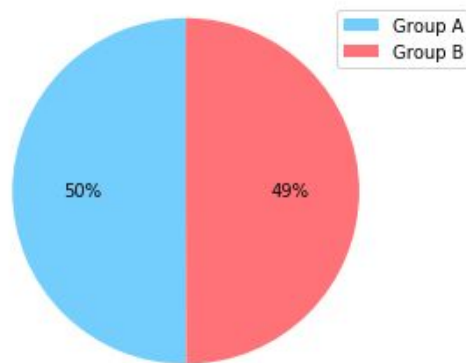
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A/B Test Sample

Participants were divided into the two groups,

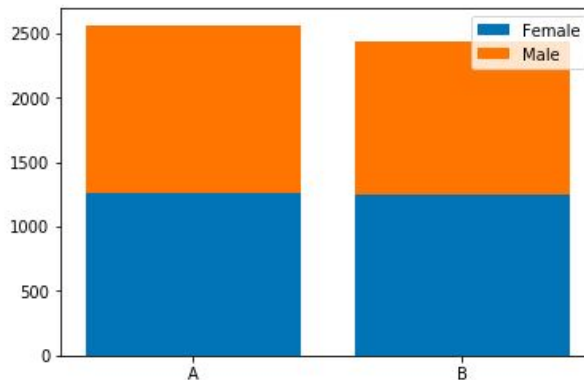
A = 2504

B = 2500



Within the groups, gender were evenly distributed.

	ab_test_group	gender	email
0	A	female	1255
1	A	male	1249
2	B	female	1309
3	B	male	1191

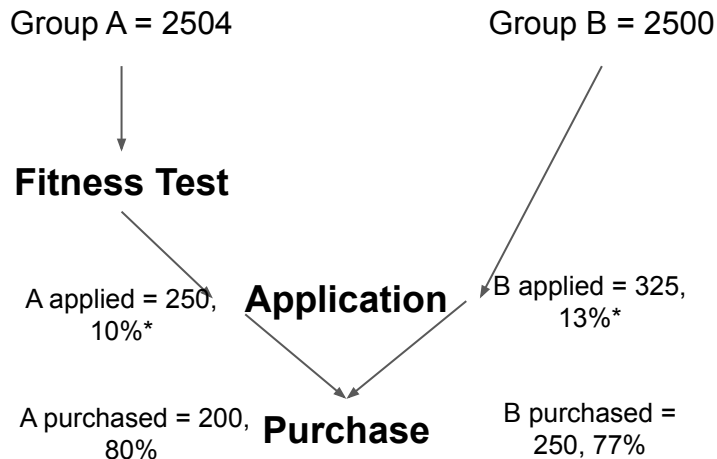
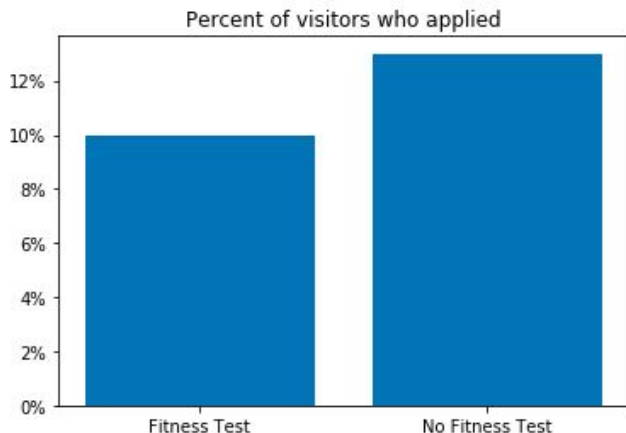


A/B Test Methodology

The aim was to evaluate how the removal of fitness test influence conversion of visitors into members.

Group B skipped the fitness test, which increased the number of applicants vs. Group A, 325 vs. 250 respectively.

Chi Square Test was run. Null hypothesis was rejected as $p < 0.05$ ($p = 0.001$). Therefore, there is a significant difference between the two groups.



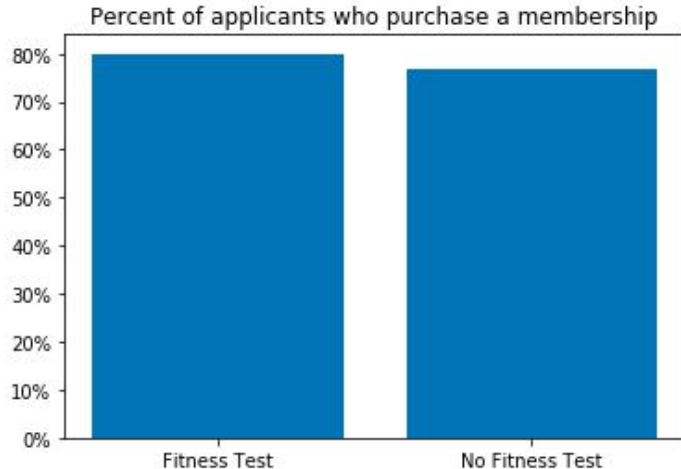
* $p < 0.05$

** $p > 0.05$

A/B Test Methodology cont_1.

Then, from those who applied, Group A showed a slightly higher conversion to members, with 80% (200) purchased memberships compared to 77% (250) in Group B.

Chi Square Test was run, *Null* hypothesis was accepted that there is no significant difference between the two groups as $p > 0.05$ ($p = 0.433$).



Group A = 2504

Group B = 2500

Fitness Test

A applied = 250,
10%*

A purchased = 200,
80%**

Application

Purchase

B applied = 325,
13%*

B purchased =
250, 77%**

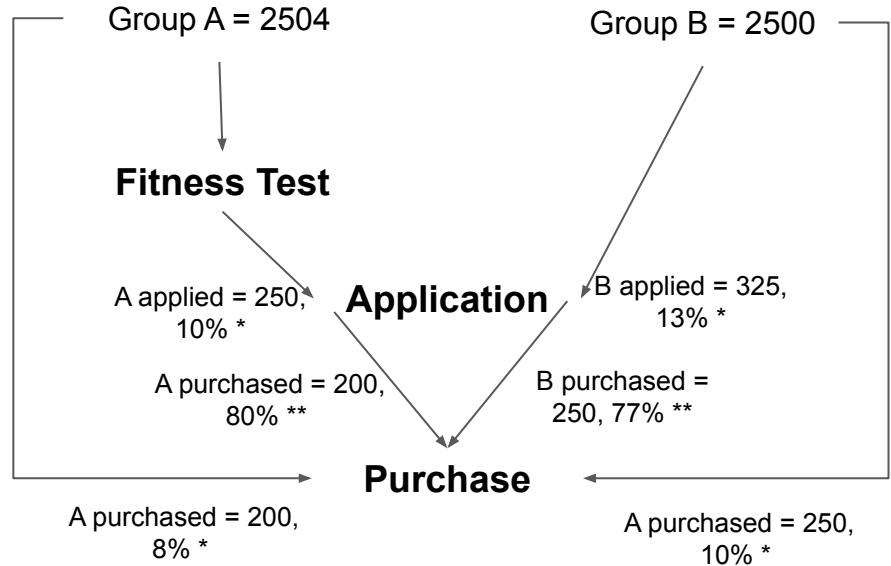
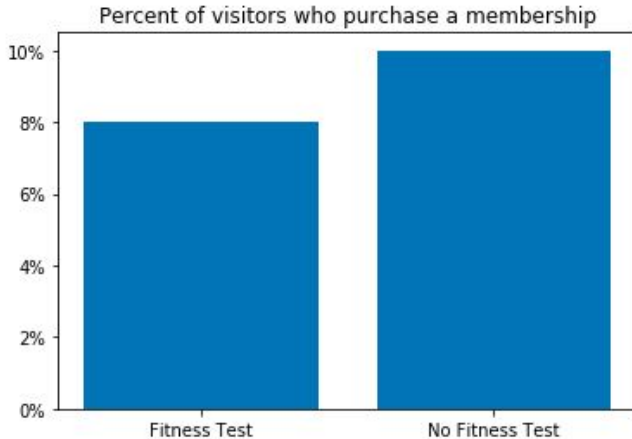
* $p < 0.05$

** $p > 0.05$

A/B Test Methodology cont_2.

Following that, conversion of all visitors to members was evaluated. Group B showed a slightly higher conversion to members, with 10% (250) visitors purchased memberships compared to 8% (200) in Group A.

Chi Square Test was run. Null hypothesis was rejected as $p < 0.05$ ($p = 0.015$). Therefore, there is a significant difference between the two groups.



* $p < 0.05$

** $p > 0.05$

Attribution of the test choice

Chi Square test was chosen as the dataset, visitors who either applied/not applied, members/not members, is categorical. Also, there was no historical data or a set target so we couldn't use Binomial Test.

Summary and Recommendation

A/B-test shows that the removal of the fitness test positively influenced the willingness of visitors to apply for membership. Despite the slightly higher conversion of applicants into members from group A, the statistical test showed that the difference between the two groups was not significant, implying that the fitness test doesn't aid conversion.

Furthermore, visitors who didn't have a fitness test tend to purchase a membership more vs. those who had a fitness test.

I would recommend removing the fitness test from a consumer journey, as this touchpoint negatively affects user experience. Finally, according to the qualitative data provided, users tend to complain about the difficulty of the fitness test. Thus, I would suggest to alter the test and run another experiment comparing how an easier version of the test could affect conversion. I'd also look if there is a difference in conversions between genders.