


Impact of Fitness Tests on Visit-to-Membership Conversion

@MuscleHub

A/B Test

CURRENT PROCESS FOR NEW MEMBERS

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

TEST

Are visitors who do not take a fitness test more likely to purchase a membership?

>> A/B Test with two groups:

A: Visitors will be asked to take fitness test before application

B: Visitors skip test and proceed directly to application

The A/B test performed shows if a statistically significant difference between both groups' likelihood of applying / becoming a member exists


Available Data

DATA TABLES

There are four data tables (csv files), which show the customer data (first name, last name, email, gender, date of resp. action) in each step of the funnel:

1. visits (5004 entries)
2. fitness test (2504 entries)
3. applications (575 entries)
4. purchases (450 entries)

PREPARATION OF DATA



With SQL and the pandas module in Python, LEFT JOINS were used to create a data frame with all information available in the four Data Tables

Hypothesis Tests – Definition

THREE DIFFERENT HYPOTHESIS TESTS WERE CONDUCTED:

A

H₀:

Visitors who do not perform a fitness test are equally likely to apply as visitors who perform the test

Method: Chi2 Contingency Test

B

H₀:

Applicants who do not perform a fitness test are equally likely to purchase a membership as applicants who perform the test

Method: Chi2 Contingency Test

C

H₀:

Visitors who do not perform a fitness test are equally likely to purchase a membership as visitors who perform the test

Method: Chi2 Contingency Test

Chi2 Contingency Test used because we are analyzing the relationship of two categorical variables in each test

Hypothesis Tests – Results

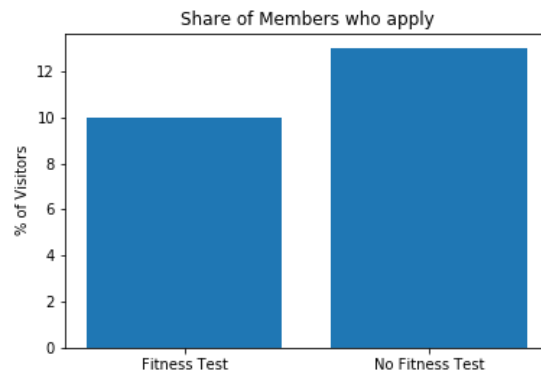
RESULTS OF HYPOTHESIS TESTS

A

ab_test_group	Application	No Application	Total	Percent with Application
A	250	2254	2504	0.09984
B	325	2175	2500	0.13000

P-Value:
0.0009647827600722304

Group B is **significantly** more likely to apply

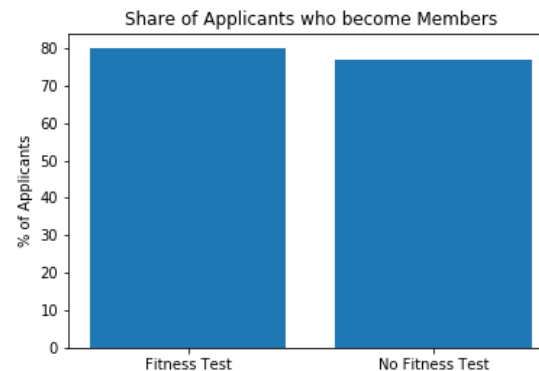


B

ab_test_group	Member	Not Member	Total	Percent of Applicants
A	200	50	250	0.800000
B	250	75	325	0.769231

P-Value:
0.43258646051083327

Group B is not significantly less likely to purchase membership

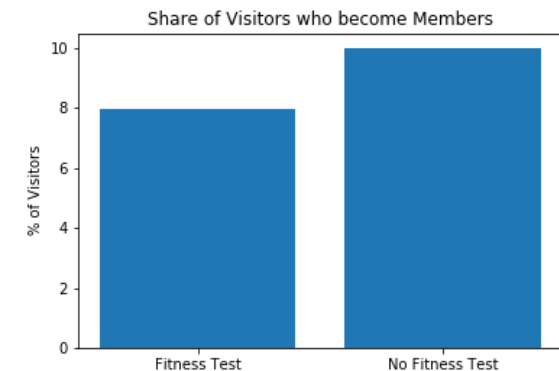


C

ab_test_group	Member	Not Member	Total	Percent of all visits
A	200	2304	2504	0.079872
B	250	2250	2500	0.100000

P-Value:
0.014724114645783203

Group B is **significantly** more likely to purchase membership



Customer Feedback

I always wanted to work out like all of the shredded people on the fitness accounts I see on Instagram, but I never really knew how to start. MuscleHub's introductory fitness test was super helpful for me! After taking the fitness test, I had to sign up and keep coming back so that I could impress my trainer Rachel with how much I was improving!

- Cora, 23, Hoboken

When I walked into MuscleHub I **wasn't accosted by any personal trainers trying to sell me some mumbo jumbo, which I really appreciated**. Down at LiftCity they had me doing burpees 30 seconds after I walked in the door and I was like "woah guys slow your roll, this is TOOOO much for Jesse!" I still ended up not signing up for a membership because the weight machines had all those sweat stains on them and you know, no thanks.

- Jesse, 35, Gowanes

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

- Sonny "Dad Bod", 26, Brooklyn

I saw an ad for MuscleHub on BookFace and thought I'd check it out! The people there were suuuuper friendly and the **whole sign-up process took a matter of minutes**. I tried to sign up for LiftCity last year, but the **fitness test was way too intense**. This is my first gym membership EVER, and MuscleHub made me feel welcome.

- Shirley, 22, Williamsburg

The qualitative data provided (customer interviews) gives an indication on why visitors who do not have to take a fitness test are more likely to apply and purchase: The fitness test is not considered helpful by several customers ("mumbo jumbo", "too intense", etc.)

Recommendation

MuscleHub should not continue to make the fitness test mandatory as it could significantly increase the conversion rate from visit to membership if customers could directly apply

Caveat: The fitness test might have other benefits (e.g. increased revenues if charged for) which might compensate its negative impact on the conversion rate