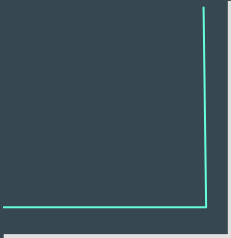


Can restrictive breathing
enhance a runners
performance?



Introduction

For my project I am trying to see if doing restrictive breathing exercise can increase a person's lung capacity and enhance a runners performance.

Research Question

Can restrictive breathing exercises enhance a runner's performance?

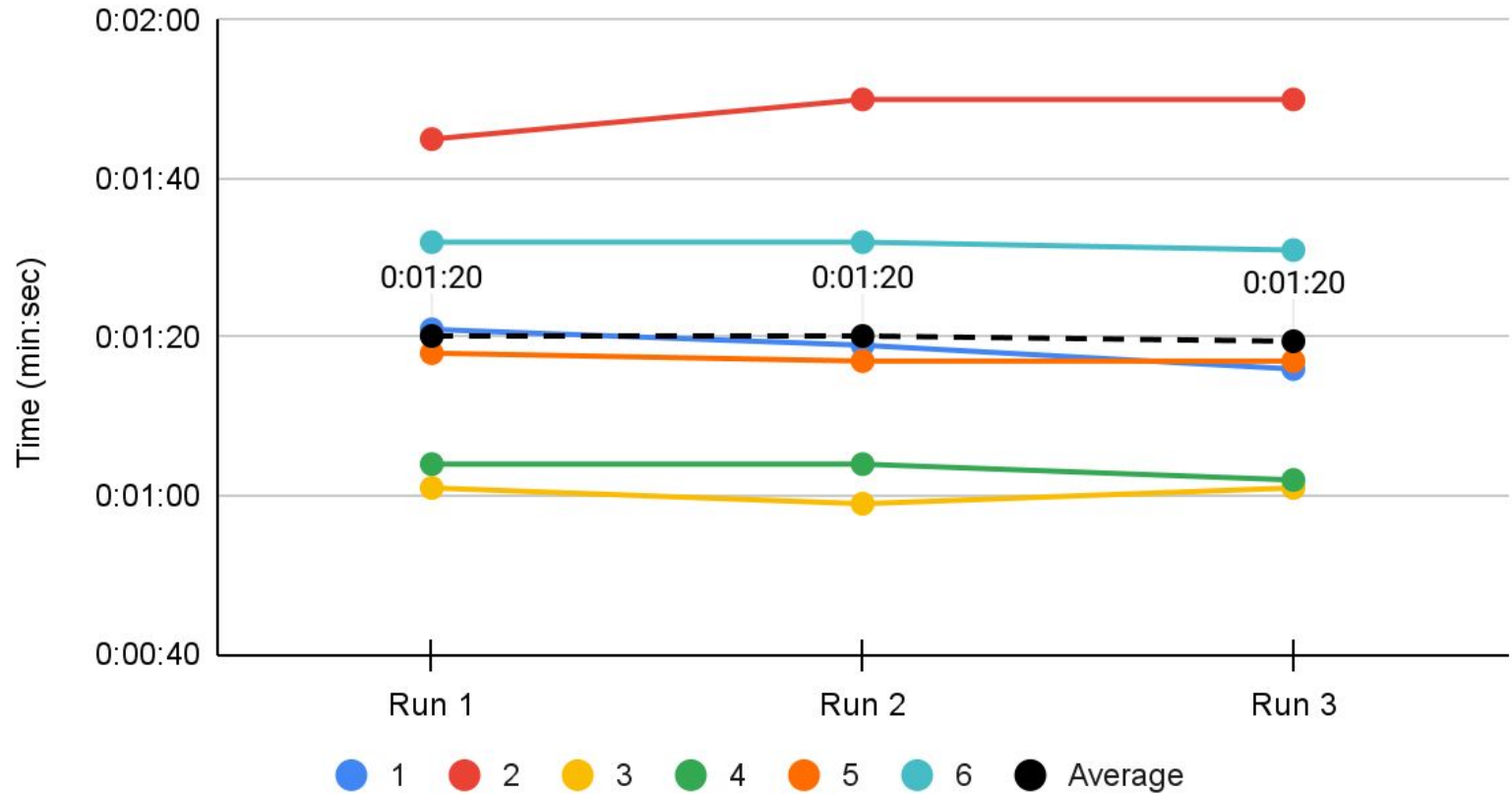
Hypothesis

I think that it will increase some of the test subject lung capacity and performance, but not all.

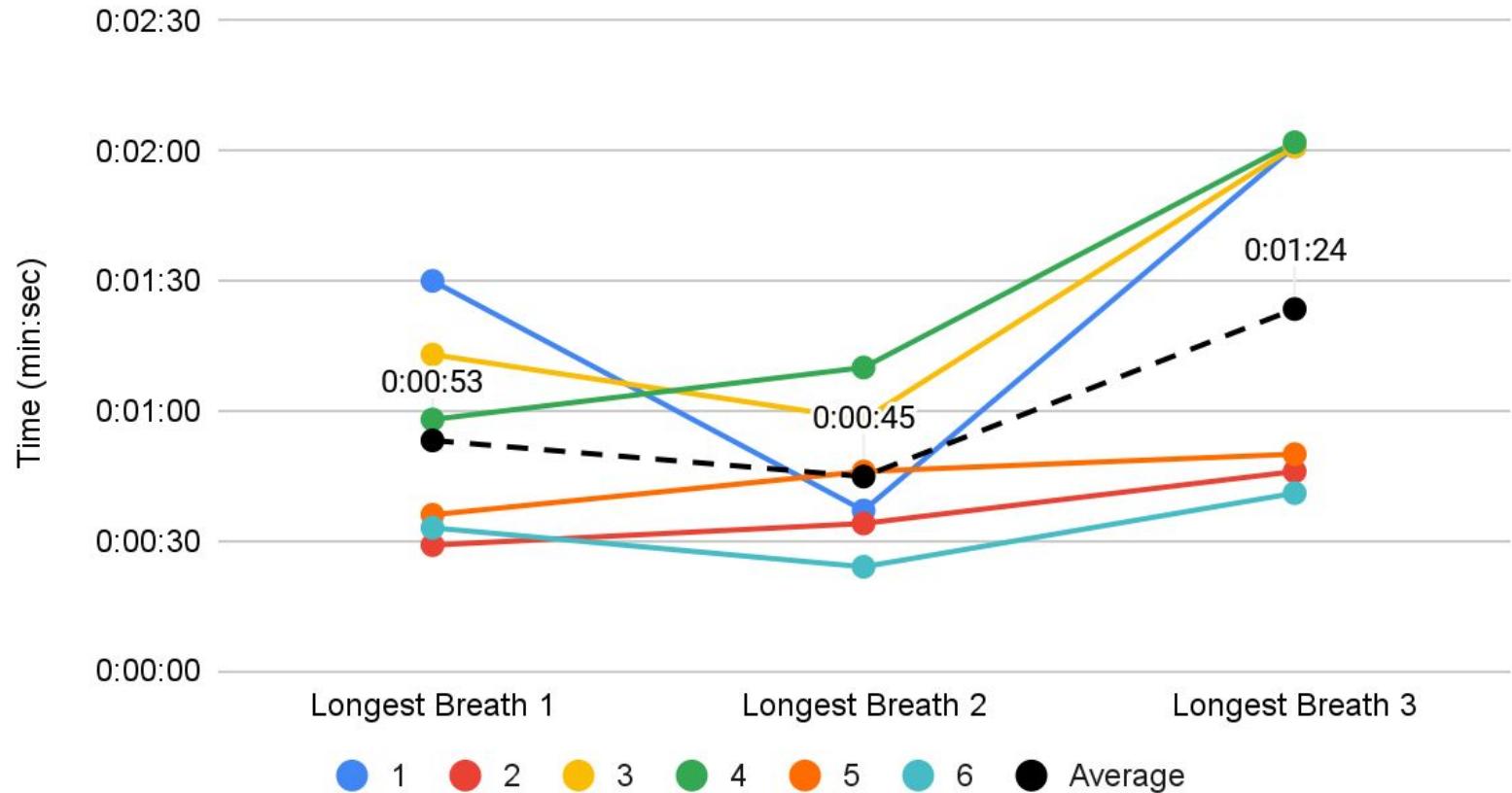
Procedures

- Have a 400m benchmark time trial
- Collect data: Time, Average heart rate, Max heart rate, and how long the test subject can hold their breath (best out of three).
- Over the week each person breaths through a straw for 5 minutes 2 times a day
- Have another time trial at the end of the week
- Collect data
- Repeat steps 3-5

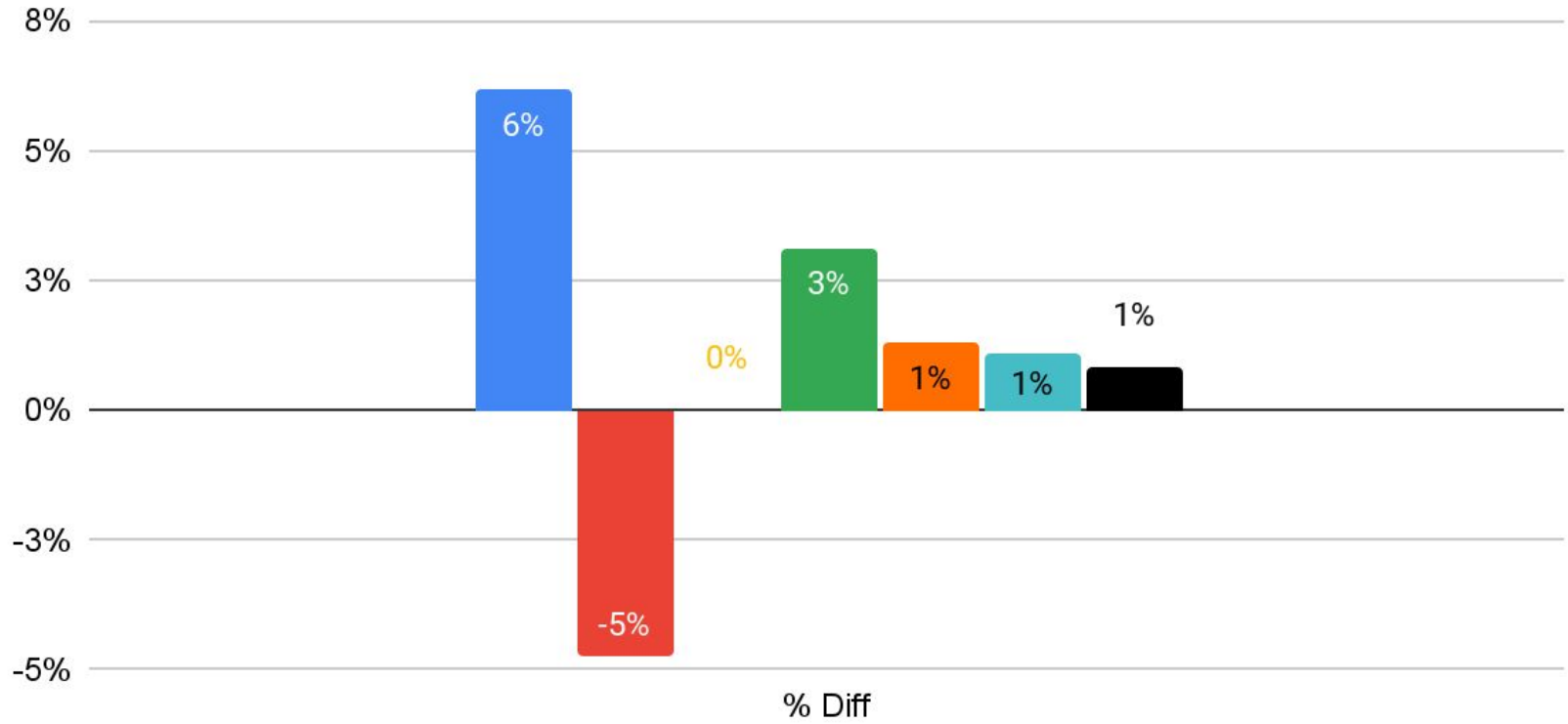
Running Results



Lung Capacity

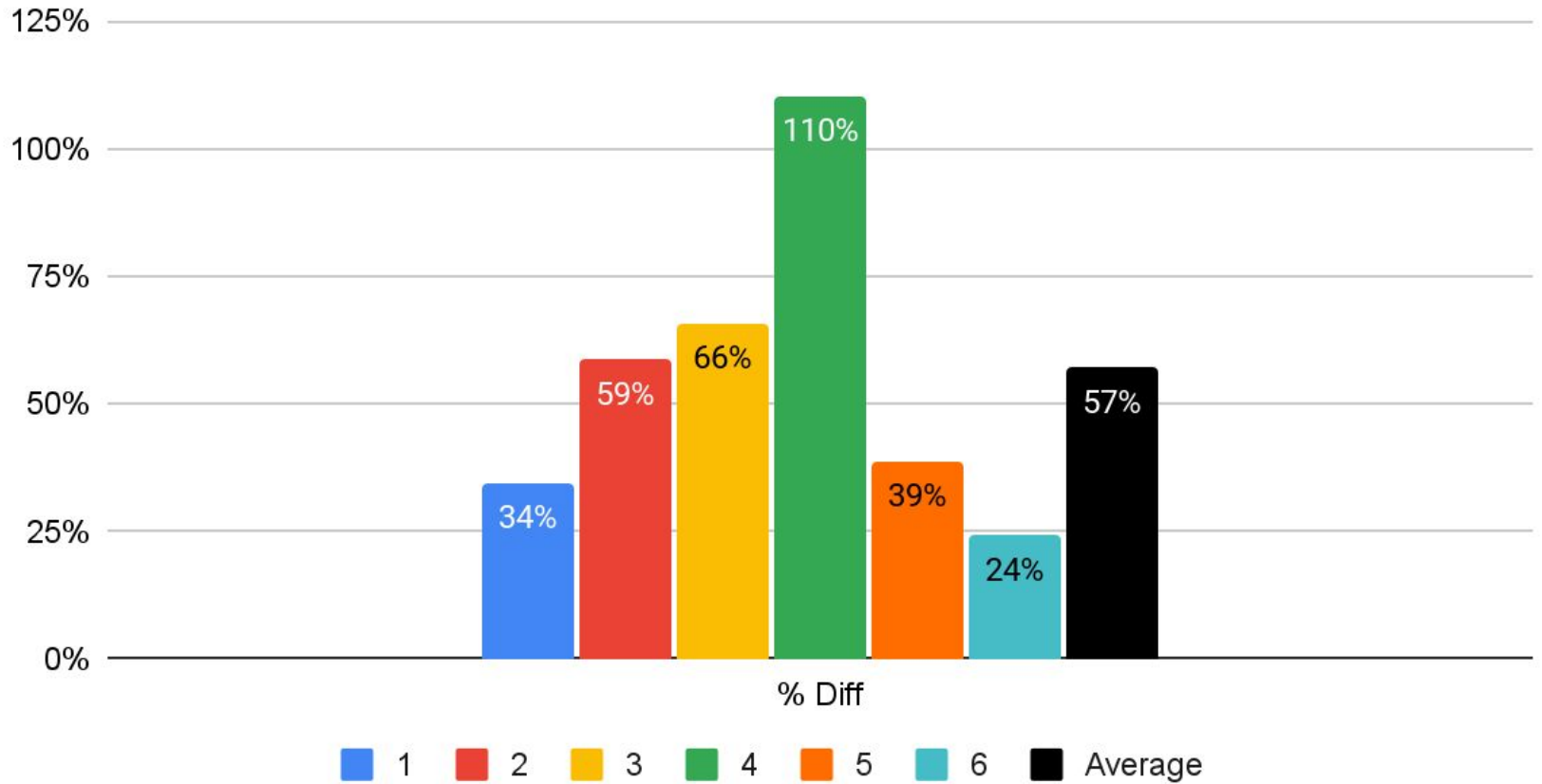


Run Times - % Change

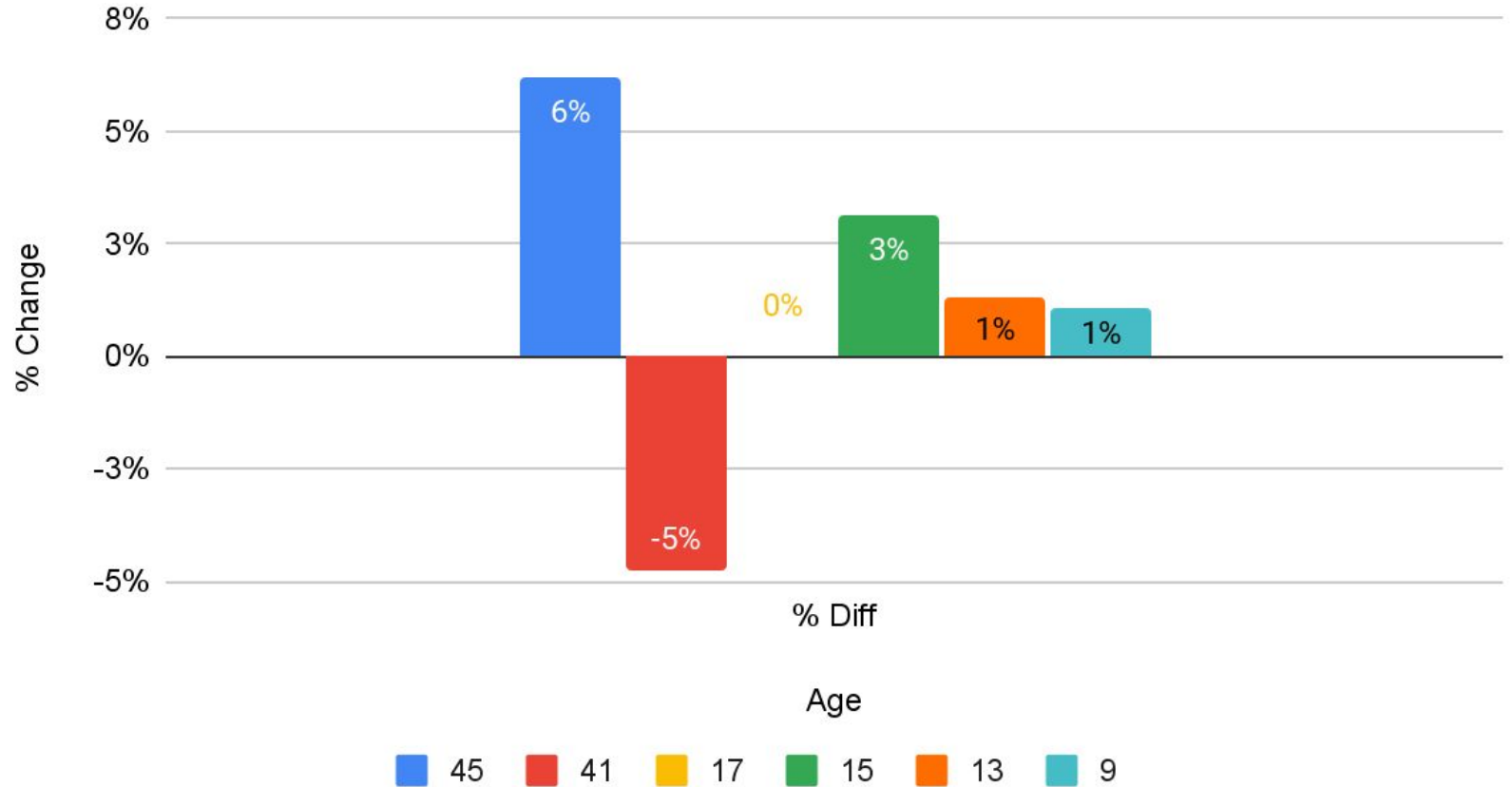


1 2 3 4 5 6 Average

Lung Capacity % Change



Does Age Make a Difference? Run Results



Observations

- There was little to no improvement on the second time trial
- The third time trial showed improvement from the benchmark
- There was a 57% average increase in lung capacity
- There was a 1% average improvement in times
- The average time to run a 400m was 1:20 min

CER

Using the restrictive breathing exercises over a three week period of time did not necessarily make people faster, although it did increase lung capacity. My hypothesis was accurate because there was an increase in lung capacity from everyone but not everyone became faster. The evidence shows that there was a 1% average increase in times, but that there was a 57% average increase in lung capacity. The average time for a 400m run was 1:20 min. Although there was little improvement in a three week period, over a longer period of time there is chance for big improvements.

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