

# Written Report – 6.419x Module 1

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## Problem 1.0

0. (0 points) Submit a report for practice.

### Solution:

This report is written mainly for the purpose of practicing report submission. In the process, I wrote a L<sup>A</sup>T<sub>E</sub>X template that anyone may download and use.

- Basic template:  
<https://github.com/ptoche/MIT-Data-Analysis/tree/main/report-template>
- This document:  
<https://github.com/ptoche/MIT-Data-Analysis/tree/main/report-template>

With the basic template you can reproduce the question/solution/citation layout below.

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## Problem 1.1

1. (2 points) How would you run a randomized controlled double-blind experiment to determine the effectiveness of the vaccine? Write down procedures for the experimenter to follow. (Maximum 200 words)

### Solution:

Write your answer in a brief and clear language. In addition, you should add all materials that you have consulted to in the Reference section at the end of the report. These materials could be a paper [1], a book [2], or some internet materials [3].

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## References

- [1] Ronald L Wasserstein, Nicole A Lazar, et al. “The ASA statement on p-values: context, process, and purpose”. In: *The American Statistician* 70.2 (2016), pp. 129–133.
- [2] Björn Gustavii. *How to Write and Illustrate a Scientific Paper*. English. 3rd ed. Cambridge University Press, Apr. 2017. ISBN: 978-1-316-60791-6.
- [3] Principal component analysis. *Principal component analysis* — Wikipedia, The Free Encyclopedia. Accessed: Sep. 2021. [Online]. URL: [https://en.wikipedia.org/wiki/Principal\\_component\\_analysis](https://en.wikipedia.org/wiki/Principal_component_analysis).