Student Time-Tracking Project

How did students spend time in the Udacity Bertelsmann Scholarship Challenge of 2018?

Hypothesis

According to the Scholarship Program, the Descriptive Statistics course requires 5-10 hours of study per week to complete within the 3 available months.

The Student Time-Tracking Project attempts to validate the Program’s estimate using our personal experience, taking into consideration the hours we spent participating in the Challenge outside the formal classwork.

Process for Creating Data

Each project member created their own data. We individually tracked hours spent in the Challenge, grouping hours by classwork versus participating with other students in various forms (for example: Slack/Forum/Facebook interaction, group projects, study groups.) Each member copied a template spreadsheet to record their time.

At the end of the Challenge, each member is asked to upload their timesheet (anonymously), along with the answers to several questions based on analysis of their own data. The project leader will then consolidate member data and make it available for group analysis.

A website was created to enable the upload. Included on the website is an overview of the project (bypassing limitations of communicating on Slack, Forum and Facebook.)

Process for Evaluating Data

Each member evaluates their own data. At a minimum, answering:

1. What is your weekly average doing classwork?
2. What proportion of total time was spent doing classwork?
3. Create a distribution of time spent, optionally grouped by activity type. What conclusions do you make from the distribution?

Members employed various methods for evaluating data, including: using spreadsheet functions, creating Python functions and writing SQL code (for example: https://github.com/Kashfia18/time_trackers_project), and Tableau.

By the same token, members use their preferred method to evaluate consolidated group data. It is hoped that members would share their methods and conclusions with others.

Project Findings and Conclusion

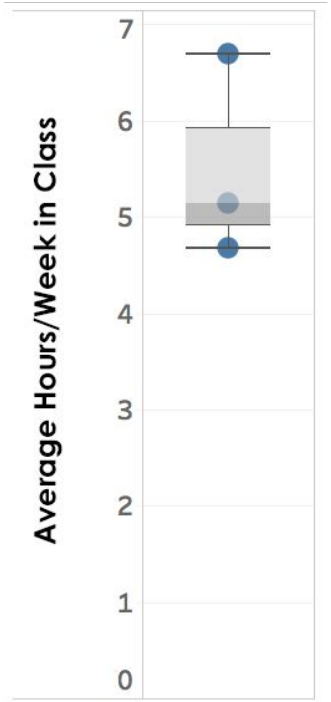
Findings

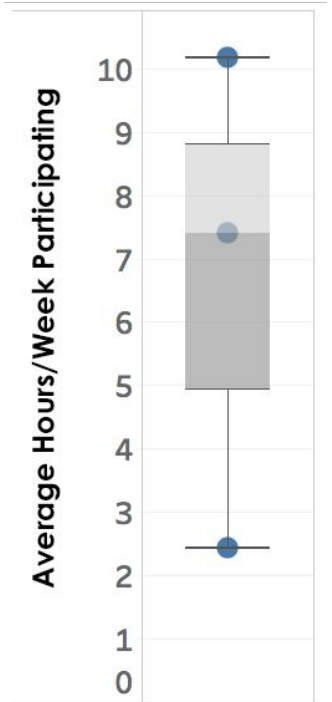
- On average, group members spent more time on the Challenge participating outside of class than they did in class.
- There was little variance in the average time students spent in class, and greater variance in average time spent participating.

Conclusion

Using the data available, the 5-10 hour/week average estimated by the Scholarship organizers is consistent with our findings. However, the 5-10 hour/week estimate does not take into account the time students spend on Scholarship activities outside the class.

Analysis based on consolidation of project member data





A Project Retrospective by Leah Erb, project leader

This Project was launched via Forum and Facebook posts the first week of the Challenge. Its purpose was to:

1. Create a project that was easy for anyone to join, especially newbies.
2. Directly apply what we learn in class to an interesting set of data (our own).
3. Gather enough data as a group to conclude how people spent time in the challenge.

There was early encouraging enthusiasm for the project (over 300 likes/thumbs-ups and 90 commenters), but only 3 students submitted their timesheets and analysis as of July 22, ‘18. Because there are still 2 weeks left in the course and this project is not yet complete, I expect more data to be uploaded soon. Other outstanding tasks include: improving Python code to automatically consolidate and clean data, and complete the group analysis report. Python programs, documentation and findings will be in this GitHub repository.

Lessons learned by the project leader

I learned quite a few soft and hard skills from leading this project. The biggest challenges were overcoming lack of communication, establishing co-leadership, and motivating project participation.

- Co-Leadership: I wish I had from the start more aggressively sought and retained leadership partners.
- Communication: students should have signed-up for the project, to enable direct communication and offer participants a sense of ownership in the project.
- Making project improvements, sharing ideas and maintaining momentum was difficult without effective communication.