

Proposal

My Independent Study will be working as a data analyst for the Sensing Curiosity in Play and Responding (SCIPR) project. My role will consist of three main parts: compiling the SCIPR data into a readable and usable format, learning the R programming language, and ultimately analyzing the data to contribute to the SCIPR research paper.

First, I would be taking the SCIPR data, which is diverse and in a variety of both electronic and print formats, and compiling it into easily accessed and usable formats. In this part of the project, I will gain valuable skills in organization and data recognition. Not only will I gain experience in efficient ways to sort and compile a broad and diverse data set, but I will also have the opportunity to learn the best ways to optimize the organization of unique and difficult-to-classify data.

Throughout the semester I will be learning the R programming language to help me interpret and analyze the SCIPR data. I am planning on using an online website called [datacamp.com](https://www.datacamp.com) to help me learn the language. Concretely, this will leave me with the ability to use R to assist in data analytics. Learning the language on my own, however, will also help me to build on my skills in independent learning and time management.

Finally, the ultimate goal of the project is to use the data analytics to make useful inferences about the project and write a paper on the topic. I will assist in the writing of certain sections of the paper that focus on the data, and make some short presentations to the research group to explain the inferences I made from the data. This will help to develop my skills in technical writing, presentation techniques, and data interpretation.

Deliverables

Wednesday, September 28

- Have looked over all the SCIPR data, both digital and physical
- Have completed the DataCamp 'novice' tutorial on R
- Meet with Ms. To at some point to discuss the relevant preliminary analytics that should be completed
- Do the Citi research training

Wednesday, October 5

- Have completed the 'intermediate' tutorial

Wednesday, October 12

- Have assembled all the data into a readable format
- Have completed the 'import and cleaning' data tutorial

Wednesday, October 19

- Have completed the 'data manipulation' and 'data visualization' tutorials

Wednesday, October 26

- Have done preliminary data analytics
- Have done the 'statistics' tutorial

Friday, October 28

- Have a short presentation on what has been achieved/discovered so far ready
 - Present at the weekly meeting

Wednesday, November 2

- Have identified what further analytics need to be completed

Wednesday, November 16

- Have completed the identified advanced analytics

Wednesday, November 23

- Begin sketching out possible inferences that can be made with the data
- Meet with Ms. To at some point to discuss what data and which inferences will and will not be included in the paper

Wednesday, November 30

- Meet with any and all relevant members of the team to help you outline and begin writing your contributions to the paper

Wednesday, December 7

- Have completed the rough sections of the paper that you will be contributing

Friday, December 9

- Have another short presentation on the data and the inferences that have been made
 - Present at the weekly meeting

Wednesday, December 14

- Have written, edited, and completely finished any contributions to the paper
- Have assembled all the SCIPR data in a relevant, readable, and useful form
- Have a working knowledge of the R programming language