Parson's Programming Puzzles: Optimizing Efficiency and Investigating the Effects of Feedback

Further research on Social Addictive Gameful Engineering (SAGE) design and computational thinking (CT)

Spring 2021
Alexander Liebeskind

Research Proposal

Background

Parson's Programming Puzzles

Scratch

SAGE
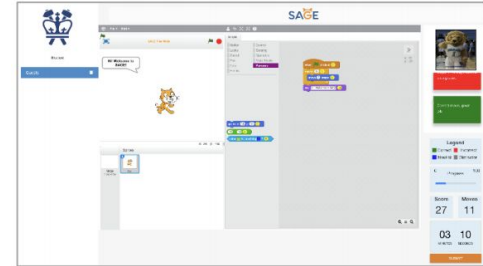
Related Work

Parson's Programming Puzzles: A Fun and Effective Learning Tool for First Programming Courses

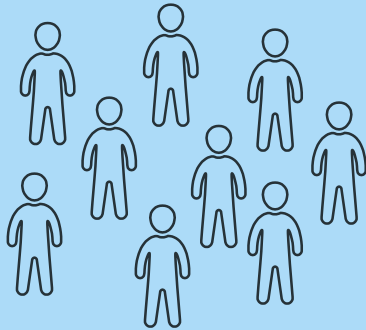Lessons Learned from Available Parsons Puzzles Software

Measuring Cognitive Load in Introductory CS: Adaptation of an Instrument
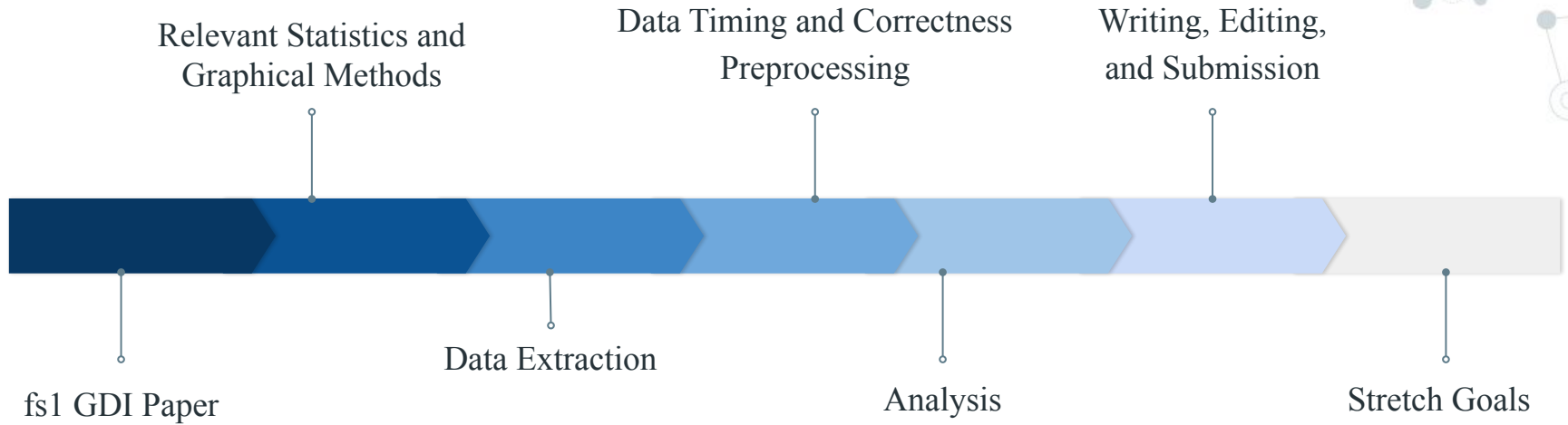
Aims of fs2

fs1 Validation

Novel Findings

Timeline

Relevant Statistics and
Graphical Methods

Data Timing and Correctness
Preprocessing

Writing, Editing,
and Submission

fs1 GDI Paper

Data Extraction

Analysis

Stretch Goals

Objectives

1. fs1 GDI Paper

2. Relevant Statistics and Graphical Methods

3. Data Extraction
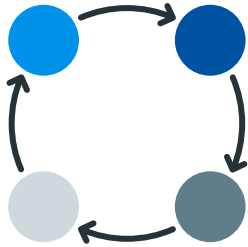
4. Data Timing and Correctness Preprocessing

5. Analysis

6. Writing, Editing, and Submission

7. Stretch Goals

Closing Notes

Logistics

Additional Resources

2020 SAGE GDI Study:

https://drive.google.com/drive/folders/1ZbGE3CRhp_QxJmLabZv5mZg8TCjjt8Zg

Github CU-SAGE:

https://github.com/cu-sage/Documents/

References

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Dmytro Vitel, Bari A.T.M. Golam, A. G. (2019). Lessons learned from available parsons puzzles software.

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