Investigation Into The Representation Of 4D Shapes

24/02/2022

Week 2 Progress Report

- Catching up on assessed exercises has slowed progress a little
- Filling in the gaps from when you last read it
- Added figures

Questions

- Opinions of figures
- Struggling to think of/phrase good strong research questions
  - What is most important aspect of geometry?
    - Being able to understand the rotations better
    - Being able to understand the shape of an object
    - Being able to understand how a shape will behave when you interact with it
  - How can different aspects of geometry be emphasised?
    - Different representations - extensions to a 3D cross section
  - How is stable rotation/manipulation achieved in 4D?
    - Rotor - too basic of a question?
  - Do people improve with more interaction with 4D shapes?
    - yes - too basic of a question?

Plan Ahead

Week 1 & Week 2
- Finish implementing test system
  - graphs between representations
  - fix rotor rotation
  - add time limit

Week 3
- Begin developing data analysis tools, most likely with a jupyter notebook
- run some preliminary tests to decide if there is any data or visualisations I want to cut

Week 4 & Week 5 & Week 6
- Run experiments
- Begin dissertation
- Begin presentation
- Further develop data analysis tools

Week 7
- Evaluation of experiments

Week 8 & Week 9 & Week 10
- Write up draft dissertation

Am I on schedule

- Yes, next week alongside writing up more of the dissertation I may begin compiling preliminary evaluation of the experiments