

Questions for Consideration

The following are lingering questions that I have been considering as I reason through my study. I would appreciate any and all feedback you may have on these questions at the proposal.

1. How should I position my interpretive framework for the workshop design study?

- I believe that the focus of each workshop is related to:

- applications of the computing tools to field related tasks
- the nature of field norms (computing within a discipline)
- workshop discourse around computational concepts

2. What should the units of analysis be for the workshops? Individuals? Groups? The entire workshop?

- In interviewing *individuals* about their workshop experiences am I focusing on the individual? Can this also catch a “glimpse” at group and/or workshop dynamics?

3. Should the workshops be audio or video recorded?

- Would recording the workshops allow me to properly describe the changes in workshop environment?

4. Will a pre-workshop “diagnostic” interview and post-workshop interviews suffice for tracking the “intervention” group’s computational knowledge?

- Hutchins advocates for “diagnostic assessments to help track development of the participating students’ reasoning during the study”.

5. If I am to analyze what transpired during each workshop, in order to plan for upcoming workshops, how long should I space the workshops out by? One (potentially repeated) workshop per month?

6. In my retrospective analysis I need to have the ability to, (1) detail “how each successive form of reasoning emerged as a reorganization of prior forms of reasoning,” and (2) identify “the aspects of the workshop learning environment that supported the students’ development of these successive forms of reasoning” (Hutchins, 2017). Does my current proposed data collection allow for me to detail and identify these aspects of the workshops?

7. The argumentative grammar for design studies, outlined by Hutchins, states that I need to have the ability to convince others that “the students would not have developed the documented forms of computational skills but for their participation in the design study.” Does this warrant the comparison of the results for RQ2 between the “control” and “intervention” cohorts?

8. Do my current demographic surveys for workshop participants allow for me to separate the necessary aspects of the workshop learning environment from those that are contingent on different samples of participants?

- This is the second aspect of the argumentative grammar outlined by Hutchins. I should aim to have the ability to make explicit the conditions under which these workshops can be successfully implemented.

9. Does the position in the graduate program (e.g. first year, second year) dictate the comparisons I should make about resources utilized in acquiring the computational skills necessary for research?

- The “control” cohort will be one-year ahead of the “intervention” cohort in their programs of study.

- Location in program may partially determine the sophistication of the computational skills these researchers need.

10. Does my study require an argument for what implementation of the workshops looks like, following my study? Do I need to propose a sustainable workshop intervention?