UCONN ENRICHMENT PROGRAMS OFFICE OF UNDERGRADUATE RESEARCH

To describe 2020-21 as an unusual or unprecedented year for undergraduate research is both true and a massive understatement. Given all of the changes and losses that have beset our communities, modifications to research and creative projects can pale in comparison. Nonetheless, it is important to acknowledge that these changes have occurred and that they have downstream consequences, including in how undergraduate researchers might approach developing a poster and presenting a project that was partly or wholly virtual. In this handout, we share recommendations for undergraduate researchers based on some common types of project modifications we have seen across research programs. General guidance on preparing a poster and video presentation is available <u>here</u>.

LITERATURE-BASED PROJECTS -

For many students, the suspension or curtailment of fieldwork and lab-based research resulted in a shift to reviewing published work and synthesizing information to map the state of existing knowledge. This deep dive into the literature might focus on particular content questions and/or on methodological approaches taken by other researchers. As you consider how to present what you learned on a poster, your key challenge - which is also the key challenge of a literature review! - is to develop an organizational scheme that synthesizes what you learned, versus simply summarizing each item you read in list form. You can think about this as developing an argument about what we know and what we need to know/do next. To do this, ask yourself the following questions:

- What was my overall research question? Were there sub-questions I explored within that broader frame?
- Imagine the documents you read in different piles. How would you label a sticky note to place on each pile?
- How do those piles relate to one another? How do they relate to the research question and sub-questions?
- What are the top-level takeaways from each of those piles? Areas of consensus or disagreement? Gaps?

This information will likely take up the lion's share of your poster. Experiment with using your "sticky note labels" as subheadings to organize main findings and key takeaways. You can then bookend that main section with introductory information up front (e.g., research question, objectives, and/or introduction) and forward-looking discussion at the end (e.g., recommendations, future directions, next steps).

ECLECTIC OR MULTI-PART PROJECTS-

In other cases, students worked on multiple projects that might be more or less closely related. The selection of projects and tasks may have been dictated by what data had already been collected, what analyses could be run remotely, and/or what was underway and could be continued when many research activities shut down. To structure a presentation of this kind of eclectic research experience, consider these questions:

- How would I summarize each project or project part I was involved in? What was the guiding question or goal, what did I do, and what did I learn?
- How do those projects or project parts relate to one another? Do they all support an overarching question or goal? Are they linked by a methodological or analytic approach? Or are they mainly linked by my involvement, such that my learning is the umbrella under which these parts come together?

Once you have identified the connective thread between the parts of your research experience, you can use that as the frame for your project, informing your choice of title and structuring an Introduction (or similar) section. The specific parts can then be presented as distinct poster sections (with their own internal structure of subheadings). Your forward-looking content (e.g., recommendations, future directions, next steps) could either be presented at the end of each poster section or in its own distinct section, spanning the various parts of your research experience.

DATA ANALYSIS PROJECTS

Given restrictions on certain types of data collection, some students found themselves working with existing datasets they were not involved in collecting and focusing their project work on analyses of that data. If this is the case for you, you will likely have plenty to say about the "middle" sections in typical presentations (i.e., discussion, analysis, results, findings). Make sure to work with your project mentor(s) to ensure you have a clear understanding of the overall structure of the project to fill in the "beginning" sections of your presentation (e.g., research question, objectives, introduction, background, methods, study design). That contextual and design information, alongside the results of your analyses, will allow you to develop the "end' sections of the presentation (e.g., recommendations, potential solutions, future directions, next steps).

Note: Throughout this document, common categories or headings used in poster presentations are mentioned. These vary from poster to poster and project to project; no specific sections are required for Frontiers posters.

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