Tentative Course Outline

The Researcher's Toolbox: Qualitative & Quantitative Techniques

Workshop Goals:

1. Understand and gain proficiency in how to conduct qualitative and quantitative research for designing products, technologies and understanding organizational needs.
2. To introduce participants to various qualitative and quantitative study designs
3. To discuss the suitability of each design for different research questions and projects
4. To highlight what qualitative research can and cannot achieve alone and alongside quantitative research.
5. To present and discuss different approaches to data analysis and their suitability for different types of qualitative and quantitative data and different questions.
6. To facilitate sharing of practical ideas, knowledge and skills on how to conduct rigorous and credible studies and data analysis using real life examples of qualitative and quantitative research projects.

Day 1: Qualitative Research

Module 1: Planning a study
- Discusses how to properly choose a research question that is necessary for the field
- Reviews efficient literature searching strategies and how to stay up-to-date
- Discusses focusing the research problem in a manageable and realistic manner
- Reviews different primary and secondary outcomes related to the research question that should be the focus of the study

Module 2: Qualitative Research Methods Overview
- Introduction to Qualitative Research
- Comparing Quantitative and Qualitative Research
- Sampling in Qualitative Research
- Recruitment in Qualitative Research
- Ethical Guidelines in Qualitative Research

Module 3: Participant Observation
- Overview of Participant Observation
- Ethical Guidelines
- Logistics of Participant Observation
- How to Be an Effective Participant Observer
- Tips for Taking Field Notes
- Case Study Samples

Module 4: In-Depth Interviews
- Overview of In-Depth Interviewing
- Ethical Guidelines
- Logistics of Interviewing
- How to Be an Effective Interviewer

- Tips for Taking Interview Notes
- Case Study Samples
- Interview Steps
- Interview Checklist

Module 5: Focus Groups
- Overview of Focus Groups
- Ethical Guidelines
- Logistics of Focus Groups
- How to Be an Effective Moderator
- How to Be an Effective Note-taker
- Tips for Taking Focus Group Notes
- Case Study Samples
- Steps in Moderating a Focus Group
- Steps in Note-taking for a Focus Group
- Focus Group Checklist

Module 6: Data Analysis
- Methods of analysis
- Principles of reflexive thematic analysis
- Coding of real- world qualitative data
- Themes development.
- Computer Assisted Data Analysis
- Reporting Qualitative Findings

Outcomes:

- Have an understanding of different approaches to, and the underpinning philosophy of, qualitative research
- Understand the key issues around recruitment and sampling in qualitative research
- Have developed skills to draft an interview topic guide/schedule
- Have an understanding of the principles of qualitative data analysis with emphasis on thematic analysis
- Be able to discuss ethical issues associated with conducting qualitative research
- Be able to convert qualitative data insights and analysis into actionable design features for technologies.

Day 2: Quantitative Research

Module 1: The Research Question: Concepts, Ideas & Significance
- Defining a research question
- Why does this question matter?
- When to use secondary data and when to turn to primary data

Module 2: Quantitative Research Methods Overview
- Comparing Quantitative and Qualitative Research
- Ethical Guidelines in Quantitative Research
- Sampling strategies

Module 3: Research Designs
- Designing your study
- Comparative work
- Causal inference and when that matters

Module 4: Survey Design
- Designing a questionnaire
- How to Be an Effective Enumerator
- Note-taking and quantitative research

Module 5: Data Analysis
- Data cleaning and labeling
- The power of descriptive work
- Thinking through correlations
- Simple regressions
- Connecting data and analysis with broader impact

Outcomes:

- Have an understanding of different approaches to, and the underpinning philosophy of research

- Understand the key issues around sampling in quantitative research

- Have developed skills to design a quantitative survey

- Have an understanding of the principles of quantitative data analysis

- Be able to convert data analysis into broader impact

*Please note that the course outline is subject to change.