Quantifying Happiness
Final Project

Overview

For your final project, you will:

1. formulate a ***research question*** (or set of research questions) related to happiness and well-being that interests you
2. ***find a dataset*** and variables that will help you address that question
3. develop a ***set of hypotheses*** based on relevant theory and research
4. plan and execute a ***set of visualizations*** that helps answer your question and test your hypotheses
5. provide a ***write-up*** to accompany your visualizations that addresses key aspects of 1,2,3 and 4 above and provides a coherent summary of what you have learned.
6. in an appendix to your write-up, I would like you to use <u>two</u> paragraphs to note the specific ***data visualization principles that shaped your design choices*** for your charts. Be as specific as you can.

Your choice of topics may be inspired by your academic training (e.g., major or key coursework), readings or discussions from this course, and/or your personal interests. You can use statistics to help answer your questions/test your hypotheses but ***the primary tool for answering your questions should be data visualizations***.

Start this project with a topic and a general question or set of questions, then search for data that can address your topic and questions. ***You can fine-tune your research questions and constructs based on the available data you find.*** I remind you that the syllabus lists resources for finding datasets relevant to happiness and that you have had experience searching for relevant data sets when you presented for class labs.

Final Project Steps/Stages

Stage 1: Formulation and Project Proposal

Identify a topic of interest related to happiness. You can build on ideas from readings or class as long as the project clearly moves beyond this foundation.

To help you move forward with your project, you are being asked to write a one-page proposal (due April 17) with your research questions, preliminary hypotheses and overall project plan. You will have a chance to consult with peers in our April 15 class to get some feedback that you can incorporate into your proposal. Coming to class on April 15 with a decent draft of your proposal will allow you to take maximal advantage of the peer consultation in class.

Stage 2: Workshopping Ideas and (Potential) Visualizations

We will devote the last three classes to giving each of you a chance to share your final project (ideas and/or beginning visualizations) and get feedback and suggestions from the class to help you move your project forward.

You will each have about 5 minutes or so to present with up to 10 additional minutes for questions and feedback from the group. ***You are encouraged to tell the class what kind of feedback you most want*** (e.g., construct clarification, data management challenges, conceptualization, data visualization questions).

Stage 3: Executing and Refining Data Visualizations and Final Write-up

The goal of this project is to produce a "user-friendly" product that takes advantage of the knowledge you gained in this class and in your research to answer a meaningful question or set of questions about happiness.

The write-up and visualizations should be integrated. That is, the write-up should include embedded visualizations, and the words should refer to those visualizations and help put the visualizations into a fuller context.

The write-up should begin with a clear statement of your research question(s) and your hypotheses. A rationale (justification) of the hypotheses should be included that references academic articles or chapters for support.

The write-up should include a clear description of the data set used (sample, how the data were collected, and the nature of the variables). Be sure to be thoughtful about how well the variables capture the key constructs of interest.

The write-up should end with a summary of the answer(s) to your research question(s) and thoughts about the implications of what you found. ***Be sure to note limitations and strengths of your data and the way you attempted to answer the question(s) you posed***. It is also helpful to suggest possible future directions for research.

The total number of visualizations is up to you except that you should provide a minimum of 3. The visualizations provided should effectively address your research question and hypotheses. If you are struggling to come up with 3 relevant visualizations, either your question is not substantive enough or your thinking can be "complexified" to identify relevant sub-questions that can be addressed by additional visualizations.

Length Guidelines: You should be striving for effective and efficient writing that addresses all the project requirements. With double-spacing, bibliography and appropriately sized margins, font, and visualizations, students have been able to address all elements of this assignment

(including the appendix) in papers that are at least 10 pages long. The most important thing to strive for in your write-up is clarity, completeness and sufficient complexity to capture your research questions, the nature of your data, and the "results" of your visualizations and their implications.

You should integrate ***at least three scholarly*** sources into your write-up to support the rationale for your hypotheses and provide additional context and meaning in your discussion of your visualizations/findings. More are likely to help deepen your overall paper.

In an appendix to your write-up, please describe the specific rationales underlying your choices about the design of each of your figures. Please cite specific (using words and page numbers) principles from Schwabish for your design choices. This appendix should be at least 2 paragraphs in length.

The appendix should also include a note identifying the source of your data and a URL for being able to download the data.

Timeline:

Date	Task
April 15	Peer consultations in Class
April 17 by midnight	Final Project Plan/Proposal (submit via Moodle): • 1-page proposal that includes: ○ ***Description of question(s)*** addressed in final project and ***preliminary hypotheses*** • Description of the data set and variables in Data Set you are planning to use • OPTIONAL but good idea: identification of at least 3 relevant scholarly articles (journal papers or chapters from scholarly books) that will help you provide a rationale for your hypotheses and discuss the results I will aim for quick feedback for all proposals submitted on time and prioritize those who will workshop their project on April 25th.
4/24, 4/29, 5/1	Workshopping of All Projects • 5 students will present in each class • Presentation will highlight the Research Question and the Proposed Hypothesis, and describe key constructs and the variables from the Data Set being used; • You are also welcome to share preliminary visualizations or your strategy for visualizations
May 10 by 5 PM	Final Project Due Date for Graduating Seniors
May 23 by noon	Final Project Due Date for everyone else

Guide to Grading

Proposal and Presentation count for 4% of your total class grade

Part I Proposal and Peer Consultation

- Full credit for submitting on time and addressing all the components

Part II: Effective Presentation in the Workshopping

- Full credit for presenting in a timely and useful manner

Part III Write-Up (25% of your total grade)

- Appropriate choice of visualization (20%)
    - The visualization type addresses the research question
    - The choice of chart represents the data well and in a way that is truthful

- Design and Aesthetics of Visualization (30%)
    - All elements and features of the visualizations have a clear and effective communicative function
    - The visualizations have a thoughtful and appealing layout and an intentional design
    - Title, headings, labels create helpful context, have clear meaning, and have appropriate sizes, locations, spellings

- Effective Communication (40%)
    - The write-up includes all of the requested elements
    - Write-up provides helpful context that make the visualizations more understandable and effective
        - Text describing the visualizations complements the charts and communicates well
    - The hypotheses and their rationale are thoughtful and compelling as is the summary of what you have learned (and potential next steps)
    - Constructs are clearly identified and their link to the data is justified
    - Overall writing is clear and effective and reflects good critical analysis and thinking
    - Writing is not hindered by typos, poor proofing or missing words

- Appendix (10%)
    - The appendix effectively explains the rationales underlying your choices about the design of each of your charts
    - Reading the appendix gives the reader an “inside look” into your design and creation process
    - Decisions are in line with good data visualization practices
        - You identify specific (using words and page numbers) principles from Schwabish for your design choices