Instructor Notes

Title: Communicating Coronavirus Data

Disciplines/courses: As designed, this assignment is written for an introductory class in General Education curriculum for undergraduate liberal arts students. The specific class is VART 238 Visual Literacy. This course is taught in the Visual Arts Department at Texas Lutheran University. Other classes that this assignment would work for with modifications would include, Graphic Design, Layout Design, Journalism or Communications courses that deal with graphics or data presentation, or possibly Marketing classes.

Degree of difficulty: I Introductory

Resources/background needed: 1) Access to Adobe Illustrator is ideal (a set of detailed student instructions for Adobe Illustrator is available as an appendix. The assignment can be accomplished with other software such as Inkscape or Tableau, though would require appropriate modification and instruction. In Adobe Illustrator, prior to this assignment students would need knowledge of the Selection Tool, Direct Select Tool, Grouping objects, Art Board Tool, manipulation of both Stroke and Fill values via the Color Palette, Type Tool and associated manipulation of type via the Character Palette, object layering properties, and methods for alignment of objects. 2) Spreadsheet software is needed. The instructions are written for Google Sheets since it's free and available on the web. Alternative software is of course possible. 3) Some means to distribute files to students electronically, such as an online file storage platform like DropBox, Google Drive, or Microsoft OneDrive. This sharing is assumed to be set up in advance of the assignment. Students will also utilize this system for sharing their own work with the instructor.

About running individual or group project: The method of individual assignment was chosen for this project for a few reasons. One is the class this was developed for is a distribution course in an undergraduate liberal arts general education curriculum and has a wide variety of students with an equally wide range of experiences and abilities. As this project is an early project in the semester working individually allows students to pace themselves, interact with the instructor as need, but also all end up with the same proficiencies with software by the end of the project. Small groups were considered and the author believes that there are reasonable modifications possible to accommodate this approach. If students had a more homogeneous set of fundamental skills it would facilitate this change in the author's opinion. For instance if a class had prerequisites or if the project was used in an intermediate class setting then the project could be modified to be slightly more difficult to facilitate a group approach.

Duration: Scheduled for one class with the assumption that it will not be finished and will need to be completed as homework. Office appointments or visiting instructors office hours is recommended.

Deliverables and evaluation: Illustrator file, PNG raster exports, and a PowerPoint file.

Open ended questions (this component could also be included in the student version): What questions can students identify from the data created or found in this project? For each question identified, what are the implications of those questions? What other information, if any, would be needed to start to answer the questions? What media stories can a student identify where the data in the project has either specific or broad implications? For instance, In the story, "Herd Immunity Is Hard to Decipher" (https://www.nytimes.com/2020/08/17/health/coronavirus-herd-immunity.html), the author presents information from recent statistical work that suggests that herd immunity may be as lower than previously expected, as and example 43% is one figure cited. Using the data from the project it would be possible to calculate the percent difference between this target rate and counties in Texas. Given the time sequence nature of the data, can students make guesses as to how long it would take to hit the cited figure by extrapolating trends?

Special instructions: This step can be done in any way that suits the structure of a class. For the General Education class taught by the author there will be a primary plan for in-person classes as well as an alternate plan in case of a change to on-line or distance learning is required. The primary plan will be to pair students as they complete steps and provide them with a set of questions to address. This will allow flexibility for students of different proficiencies to self-pace in the classroom setting and increase the use of domain specific vocabulary in specific descriptions of visual information. The students will be asked to identify at least 10 observations about their initial plot. They will need to record their observations as complete sentences and turn them in as an additional document via DropBox. They will use their observations in the next steps. The alternate method for distance learning will be to use the Forums sections of the University's LMS to create a space for the class to make observations. The requirement will change from 10 observations in pairs to 4 observations as individuals. These observations can be created as unique comments or as replies and the LMS is flexible enough to have a corresponding assignment that monitors the forums and counts comments and replies. Students would then have the opportunity to use any observations generated by the class to continue to the next session.

Revision and Continuation: Continuation for the class this was developed for will be in the form of a homework assignment. The assignment asks students to observe and analyze a series of professionally published visualizations of data related to what they used in this Project. Compare and contrast the approach to visualizing similar data with at least one professional graphic with

what they made is one part of the assignment. Another part of the assignment is to identify ways that math was used to answer a more complex question or show details that aren't shown by the simple charting of raw data that was done in the project they completed.